

Executive Receptivity to Change : A Dispositional Perspective

by

Chan Yin Lee, Maureen

(陳 燕 珣)



MASTER OF PHILOSOPHY THESIS

Presented to
The Graduate School

In Partial Fulfilment
of the Requirements for the Degree of
MASTER OF PHILOSOPHY

Faculty of Business Administration
The Chinese University of Hong Kong
June 1998



Acknowledgements

The completion of this study cannot be done without the help and support of my professors, classmates, family members and many of my friends.

I would like to express my deepest gratitude to my thesis supervisor, Prof. Lau Chung Ming, who not only helped formulating and refining the ideas in this study, but also gave me much encouragement throughout the whole course of my work.

I would also like to thank Prof. David Ahlstrom and Prof. Johnny Wan, who are members of the thesis committee, for valuable comments on the thesis.

Special thanks should be given to my classmates who shared thoughts with me and many of my friends who helped me in the data collection process.

TABLE OF CONTENTS

TABLE OF CONTENTS	ii
APPENDICES	iii
LIST OF TABLES	iv
LIST OF FIGURES	v
ABSTRACT	vi
Chapter	
I. Introduction	1
II. Theory and hypotheses	7
Dispositional perspective - arguments and findings	7
Dispositional variables related to change orientation	16
Moderating effect of demographic characteristics - age and tenure	24
Change experience and receptivity to change	29
III. Research Method	31
Samples and procedures	31
Measures and instruments	34
Statistical power	50
Analysis strategy	50
IV. Results	54
Means, standard deviation and correlation	55
Regression results	56
Hypotheses testing results	62
Actual organizational change and change experience	70
V. Discussions	72
Limitations	78
Implications and future research	80
Conclusion	83
References	85

APPENDICES

Appendix A	Frequency table of age	96
Appendix B	Frequency table of industry tenure	97
Appendix C	The questionnaire	98
Appendix D	Standardized residual plot	106
Appendix E	Normal probability plot : standardized residuals	107

LIST OF TABLES

Table 1	Descriptive statistics of research sample	33
Table 2	Items for receptivity to change	38
Table 3	Different types of organizational changes	40
Table 4	Reliabilities of the scales of independent variables	47
Table 5	One-way analysis of variance testing of demographic data	51
Table 6	Means, standard deviations, and correlations of independent and dependent variables	55
Table 7	Results of hierarchical regression analysis of the dispositional variables on receptivity to change with interaction with age and industry tenure	56
Table 8	Results of hierarchical regression analysis of the dispositional variables on receptivity to change with interaction with age	58
Table 9	Results of hierarchical regression analysis of the dispositional variables on receptivity to change with interaction with industry tenure	60
Table 10	Results of hypotheses	69
Table 11	Regression results of weighted scale of favorable level and different change categories on receptivity to change	71

LIST OF FIGURES

Figure 1	The conceptual model	29
Figure 2	Graphical presentation of interaction between risk-taking and age.	62
Figure 3	Graphical presentation of interaction between tolerance of ambiguity and age	63
Figure 4	Graphical presentation of interaction between external locus of control and age	64
Figure 5	Graphical presentation of interaction between external locus of control and industry tenure	65
Figure 6	Graphical presentation of interaction between social-oriented achievement motivation (SOAM) and industry tenure	66

Abstract

Organizational changes are always considered a strategic issue to sustain organizational effectiveness while executives are prominent figures in affecting changes. However, they are not uniformly open-minded towards change. There are a lot of literature on identifying determinants to organizational changes and most researchers focus on observable variables such as those demographic ones. For instance, Hambrick, Geletkanycz and Fredrickson (1993) explored executives' psychological orientation in terms of commitment to status quo, which used tenure, organizational performance and environmental discretion to predict change orientations. This study thus continues the research on psychological orientation in terms of executives' receptivity to organizational changes. The dispositional perspective, though much criticised, has revealed some encouraging findings which worth further exploration. In this study, a dispositional perspective has been taken into discussing determinants of receptivity to changes. It provides a more direct explanation to psychological orientation of managers while demographic variables are considered as moderators.

Four dispositional variables, risk-taking propensity, tolerance of ambiguity, locus of control and achievement motivation are identified from change literature and found to be consistent over time and situations. Age and industry tenure are identified as moderators. Four hypotheses are proposed to test the main effects of the four dispositional variables on receptivity to change. Four other hypotheses are proposed to test the moderating effects of age and industry tenure between the four dispositional

variables and receptivity to change. An empirical study was carried out with data collected from working managers. There are 215 valid returned questionnaires. The response rate is 49%. Hierarchical multiple regression analysis is carried out to study the dispositional main effect and demographic moderating effect.

It is found that there is a significant positive relationship between risk-taking propensity and receptivity to change even when it is interacting with age. Furthermore, the interaction effect of risk-taking propensity and locus of control with age account significantly for the variation of receptivity to change of managers. Locus of control and achievement motivation are significantly interacting with industry tenure in affecting receptivity to change. Tolerance of ambiguity is found to be significantly interacting with age but the form of relationship is inconsistent for high and low level of tolerance of ambiguity. This is an area worth further exploration.

This study confirms the importance of dispositional effect in explaining receptivity to change and also establishes the significant relationship between dispositional and demographic theories. In practical aspect, managers, responsible for human resources functions, should consider the effects of both dispositional and demographic factors in understanding the psychological orientation or ultimately the behaviours of individuals, in carrying out their duties, e.g., recruitment and selection, training and development.

提 要

每當人們相信機構變革能夠帶來績效時，行政人員未必一致地以開放心態面對有關的轉變，可是他們却同時在抗拒抑或推動變革方面扮演至為重要的角色。有關影響機構變革決定因素的研究文獻多不勝數，然而研究者大都着重如人口統計數據般的可觀測變數，舉例說，Hambrick, Geletkanycz, & Fredrickson (1993) 以行政人員對保持現狀的投入程度為基點去探究他們的變革心理定向，他也是利用任期、機構表現和環境作用等去作出推測。另一方面，一種以性格取向的觀點，雖甚受多方面評論，但卻引出一些顯著的研究的結果，這是值得繼續探討的。本論文就跟據性格取向的觀點立論，以行政人員對機構變革的接受程度去繼續探求他們的心理定向，討論變革接受度的決定因素，這方法可以提供更直接而有力的解釋去找出管理人的變革心理定向，同時間確立人口統計變數只對性向變數帶來制約性的影響。

文獻中以承受風險的傾向、對模稜兩可的忍受程度、控制領域、和成就動機等四個性向變數來進行是項研究，而這些變數已被證實具持續性特質；另外，管理人的年齡及其行業年資則歸入制約性因素。本研究提出八項假設作求證之用，其中四項以求證本文所提出四個性格取向變數，對機構變革的接受程度產生正面主體影響，另外四項則為求證每一個性向變數又各自被年齡或行業年資所制約。所須數據通過發問卷到在職管理人的方式收集，收回的有效

問卷共二百一十五份，回應率達百分之四十九。運用等級迴歸分析法去研究性向變數的主體作用和人口統計變數的制約作用。調研的結果是承受風險的傾向的主體作用對管理人的變革接受度很重要；另外，承受風險的傾向，對模稜兩可的忍受度，控制領域和成就動機這四個性向變數，當受到年齡或行業年資制約後，顯著地解釋到變革接受度的方差，而其中三項假設得以求證作實，唯對模稜兩可接受度的假設未能得以全面求證，有待進一步探討。

總的來說本研究確認了性向主體作用時管理人的變革接受度很重要，並且確立性格取向及統計理論兩者間重要的關係。

Chapter 1

INTRODUCTION

Many research findings indicate that organizational change is necessary to sustain organizational effectiveness (Frohman, 1997; Grimm & Smith, 1991; Wiersema & Bantel, 1992). What accounts for organizational inertia and changes, either incremental or radical, large or small scale are continuously studied. Udy (1959), in his comparative research, indicated that environmental uncertainty increased when organizational environments were changing and heterogeneous. The same situation is happening in Hong Kong when political and business environments are changing rapidly with the handover on 1st of July 1997. These environmental changes bring along uncertainty and ambiguous situations. Structurally, many firms have undergone downsizing or reorganizing in order to streamline their operations and to be more efficient. Many new strategic alliances have developed in recent years. Hong Kong was the top Asian target for merger and acquisition activity in 1996 (Economic Daily Journal, 1997). Not only that the magnitude of change is intensified, but the types of changes also increase. In this new era, organizational change becomes a necessary strategic issue that helps organizations adapt to the environmental change momentum.

Changing environment may lead to declining performance of organizations if prompt realignment of the fit between strategy and structure fails to occur.

According to the rational lens perspective on strategic change, environmental conditions directly influence changes in the content of strategy through a deliberate

analysis of strategic alternatives. However, Rajagopalan & Spreitzer (1996) argued that this perspective offers little guidance to managers seeking to intervene in the change process to enhance effectiveness. It is found that changes in organizational conditions (e.g., declining performance) trigger managerial actions (e.g. information gathering) (Rajagopalan & Spreitzer, 1996; Simons, 1994). A well known premise in the literature on organizational change is that members will not be receptive to change unless they are dissatisfied with the current situation (Kimberly & Quinn, 1984). Several scholars have suggested that managerial actions are predicted upon management's beliefs about what the environment is like (Jackson & Dutton, 1988; Walsh, 1988). Lau (1992) found that in Hong Kong most organization development interventions occurred at the top management level. It was thus not surprising for the focus to be on organisational-wide improvement activities. All these reflect the significant role of managers on organizational changes. Hage and Dewar (1973), who studied values, found that executive's attitudes toward innovation were associated with subsequent levels of organizational innovation. The managerial effect on organizational changes offers more direct explanations to organizational changes since changes cannot be actualized without people taking actions.

There is, nevertheless, a growing concern on the importance of a strategic leadership to organizational change (Hambrick, Geletkanycz & Fredrickson, 1993; Nadler & Tushman, 1989). Hambrick et al. (1993) reviewed the evidence that top executives are not uniformly open-minded towards change and top executives seem to figure prominently in an organization's propensity for either inertia or change. Top executives seem to play a very crucial role in predicting and explaining

organizational changes. Strategic choice advocates, argue that people, not organizations, make decisions and that the decisions depend on prior processes of human perceptions and evaluation (Child, 1972). These processes are believed to be constrained by managerial orientation created by needs, values, experiences, expectations, and cognitions of the manager (Child, 1972; Montanari, 1978). In order to understand organizational change more fully, it is worth to trace along managerial psychological orientation through their needs, values, experiences or expectations. Pettigrew, Ferlie and McKee (1992) suggested that the concept of receptivity is important for assessing the role of context in aiding or inhibiting change. Receptivity to change, according to Wiersema (1992), suggests an openness to pursuing different business approaches, which is essential to strategic change. The general term receptivity specifies the extent to which the context shows openness or responsiveness to change.

A variety of research studies have shown that certain demographic variables can be linked to individual's receptivity to change (e.g. Wiersema & Bantel, 1992). Several studies have found a link between long tenure and high commitment to status quo (Hambrick et al., 1993; Steven, Beyer, & Trice, 1978). Receptivity to change and commitment to status quo can be said to fall on two opposite ends of a psychological continuum. According to Hambrick et al. (1993), commitment to status quo refers to the belief in the enduring correctness of current policies and profiles, resulting in less organizational changes. Whether this psychological orientation has any direct effect on organizational changes requires further studies.

Hambrick and Mason (1984) argued that top managers act on the basis of their psychological orientations, values, cognitions and beliefs. However, these psychological factors, though significant, are rarely studied or measured (Hambrick et al., 1993). Instead, many researchers use easily observable demographic variables (e.g. age, functional background, educational level, industry and organizational tenure), organizational contextual variables (e.g. age, size) and environmental characteristics (e.g. dynamic or static, high or low industry discretion) to explain the different forms, scales or magnitude of changes. However, these observable variables may represent only proxies for underlying cognitive or psychological orientation and may not fully capture the cognitive or dispositional variables of interest. Meanwhile, the findings of the effect of tenure is rather mixed. Hambrick et al. (1993) found that tenure was positively related to executive's commitment to status quo. Miller and Droge (1986) argued that CEO of moderate tenure might be more prompt in adapting and fostering frequent piecemeal and incremental changes. Wiersema and Bantel (1992) found that firms with very short top management team tenure (less than five years) had the least amount of strategic change. The mixed findings of this demographic variables worth further exploration and explanations.

It is thus the major objective of this study to explore the kinds of dispositional variables that contribute to variation in the managerial psychological orientation of receptivity to change and how they are exerting their effect. Dispositions of executives may be the fundamental determinants of their initiating different kinds of organizational changes. They will offer more direct explanations to organizational development. This study also aims to identify and confirm dispositional variables

which specifically account for receptivity to change and to explore the reasons behind such relationship. The previous studies on demographic variables also contributed much to variations in executives' psychological orientation. Another objective of this study is to establish and explore the relationship between the dispositional traits and demographic characteristics of managers on their psychological orientation.

Organizations require changes to align to changing environment to ensure their continuous success. The identification of determinants of organizational changes provides valuable information for facilitating organizational changes. Understanding the factors that deter managers from change would help organizations take positive steps to overcome the barriers. This study will offer a clearer picture as why some managers are more receptive to change while others are not when dispositions can explain some of the variation of change orientation of managers. It will widen the views and provide alternative explanations to the mixed findings of the effect of tenure in change orientation as described in previous paragraphs. It will provide more empirical support to the existing dispositional theory in organizational change and will enhance the generalization power of this theory. The results will enrich existing dispositional theory and provide a link between dispositional and demographic theories when their interaction relationship is found. In the present changing environment of Hong Kong, it is a good opportunity to note the effect of dispositions on organizational change behaviour.

A thorough review of relevant literature on dispositional perspective will be done to understand the nature of dispositions. Relevant dispositional variables in organizational change literature will be identified for an empirical study in Hong

Kong. Hypotheses will be formed and empirical study will be carried out to test the effect of dispositions and demographic characteristics on receptivity to change.

Dispositions are characteristics of individuals and thought to be psychological and are viewed as tendencies to respond to situations in predetermined manner (House, Shane & Herold, 1996). In a broad sense, personality characteristics, attitudes, needs, and motives are dispositions. In this study, the broad context of dispositions is adopted. Dispositional variables identified from literature in this study will be related to change orientation of managers. Receptivity refers to the openness of managers towards change. When a manager is more receptive to change, he will be more willing to accept changes in his organization and will be more responsive to change activities.

Chapter II

THEORY AND HYPOTHESES

Dispositional perspective - arguments and findings

Dispositionalists argue that individuals possess unobservable mental states or dispositions that are relatively stable over time and that determine, at least to some extent, their attitudes and behavior in organizations (Weiss & Adler, 1984). Kohn and Schooler (1982) suggested that individuals adjusted their cognitive style to their job demands while at the same time molded the job to fit their cognitive style. Dispositional characteristics appear to have an effect on organizationally relevant outcomes, controlling for situational and measurement effect (House, Howard, & Walker, 1991). Because dispositions are unobservable, their existence is to be inferred from intertemporal and intersituational consistency in observable behaviors and expressed attitudes (Davis-Blake & Pfeffer, 1989). For studying the effect of dispositions, variables that are intertemporal and intersituational consistent should firstly be identified.

It has been found that contextual factors like organization size, age and structure of organizations have been found to have effects on different aspects of strategic change, but the findings are equivocal. Organization size has been found to have positive (e.g. Zajac & Kraatz, 1993) and negative effect (e.g. Fombrun & Ginsberg, 1990) on the likelihood of strategic change. Similar ambiguous effects have also been evident for organization age. Organization age increased the magnitude of change (Boeber, 1989) and the likelihood of change (Singh, House, &

Tucker, 1986). Similarly, when faced with the same environmental change, some organizations respond by changing their strategies, and other organizations do not. This apparent contradiction leads to the implications of the role that managers play in initiating strategic change. The findings in the studies of Pettigrew (1987) and Webb and Dawson (1991) indicated that managerial interpretations of organizational conditions influenced the need for strategic change more directly from those objective measures. The dispositions and cognitions are two important personal factors that may explain more directly for the contradictory findings of the likelihood of strategic change. Ginsberg & Abrahamson (1991) indicated that there can be significant variations in managerial cognitions of similar environmental events.

It has been well known for some time that dispositional effects are likely to be strongest in relatively weak situations and weakest in relatively strong situations (Bem & Funder, 1978; Monson, Hesley, & Chernick, 1982). There is a substantial amount of evidence that organizational settings are strong situations that have a large impact on individual attitudes and behavior (Davis-Blake & Pfeffer, 1989). Strong situations, as mentioned in the study of Davis-Blake and Pfeffer (1989), refer to highly institutionalized formal organizations that have become an institutionalized means of performing a wide variety of activities. Attitudes and behaviors inside formal organizations are also highly institutionalized and governed strictly. Some of the research on organizational culture also lead to strong situations of organizations which pose important effects on people's attitude and behavior (Schein, 1985; Wilkins & Ouchi, 1983). Organizations undergo transformations, structural changes, cultural changes that leads to unstable, ambiguous and confusing states are in weak situations.

The strong situation argument has its limitations. It is based on the assumption that the environment provides unambiguous cues as to appropriate behaviors, but organizational transformations, structural changes and cultural changes are situations that are unstable and ambiguous for individuals. Besides, situations are not perceived similarly by all individuals. O'Reilly, Parlette and Bloom (1980) suggested that individual characteristics influence the perception of situations. This weakens the strong situation assumption. House et al. (1996) suggested that dispositions need not manifest themselves in all situations and may be thought as triggered by situations. Achievement motives and other potential explanations of behavior will become more or less salient when situations evoke them. It is important to note that not all individuals will respond in the same way to the same situational cues. Therefore, dispositions have their effect on individuals at varied levels.

The dispositional approach also implies that individuals are stable and non-adaptive, yet a growing body of research indicates that individuals are highly responsive and adaptive to organizational settings and that personality traits change in response to organizational situations (Davis-Blake & Pfeffer, 1989). However, it is found that old aged and long tenured individuals will be more committed to status quo in the same organizational settings and situations (e.g. Hambrick et al., 1993). It implies that other factors, like demographic characteristics, may interact with personality traits, leading to a change in personality traits in its outcome. It does not mean that the direct and steady effect of dispositions can be discounted at all. It has to be noted that there is the possibility that attitude changes may not persist over time

because of a tendency for satisfaction to return to an equilibrium state determined by one's affective disposition (Landy, 1978). In both Kohn and Schooler's (1982) and House et al. (1991) studies, the vast majority of the individuals under study changed jobs and social networks. Their studies showed intertemporal correlations of dispositions and also met the requirement of cross-situational stability of dispositions.

The research on organizational demography (McCain, O'Reilly, & Pfeffer, 1983; Wagner, Pfeffer, & O'Reilly, 1984) suggested that it is the network of relationship among individual, not merely the average level of any particular individual attribute, that accounts for organizational phenomena such as turnover. Davis-Blake and Pfeffer (1989) further argued for the idea that an organizational situation represents the individuals who comprise the situation is inconsistent with the evidence that relationships among individuals not merely the average level of any individual attribute, affect people's attitudes and behavior in organizations. Lawrence (1988) found comparable results for the effect that age has on attitudes. Similarly, Kanter (1977) detailed the effects of group composition on attitudes and behaviors, and Krackhardt and Porter (1986) illustrated the effects of network position. It seems possible that when individuals change jobs, the social influences in the new job will be similar to the social influences in the old job. All these suggest nondispositional reasons why job satisfaction may be highly stable over time. Again, the existence of nondispositional factors which affect the attitudes or behavior of individuals does not mean that the dispositional variables do not have their effect at all. Kanter (1977) discussed the effects of group composition on attitudes and behaviors. He, in fact, pointed out that the effect of attitudes, part of

dispositions in our discussion, will be moderated by some nondispositional factors over time.

There are also favorable findings for the effect of personality influence. The findings of Miller and Droge (1986) supported the notion of personality influence, although it might be due to the contingent nature of the conclusion. Holland's (1973) study of vocational choice suggested that individuals seek out work environments that are consistent with their personality types. Staw, Nancy and Clausen (1986) stated that evidence of temporal stability provides at least a clue, if not evidence, that some dispositional forces may be operating on attitudes and behavior. Staw and Ross (1985) noted that a person's job satisfaction in 1966 was a significant predictor of his or her job satisfaction in 1972, even when changes in occupational status, pay, occupation, and employer were controlled. Staw et al. (1986) took their study of Berkeley men from adolescence through late adulthood. They used clinical observations of the men's affective disposition in early adolescence and young adulthood to predict the men's job satisfaction later in life. The study presented the stability of dispositions at time of work. Nelson and Sutton (1990) found that distress symptoms at nine months after newcomers entered an organization were more strongly predicted by distress symptoms reported before entry into the organization than by work demands (situation) at six months after entry. It seems possible that psychological reactions of individuals to their settings (e.g. satisfaction) may be conditioned by individual characteristics. Kohn and Schooler (1983) reported two longitudinal studies of the effects of jobs on persons and persons on jobs. McClelland (1965) presented facts that high need for achievement predisposes a young man to seek out entrepreneurial position in which he can, normally, attain

more of the achievement satisfactions he seeks than in other types of position. Staw, Bell and Clausen (1986) found a range of personal and interpersonal dimensions forming a coherent set of individual characteristics that retained its factor structure over time and that possessed some temporal stability (being statistically significant for up to 40-year intervals). Staw and Ross (1985) found stability in job attitudes over time and situation. It implies that some dispositional variables are rather strong and will not be easily moderated by other contextual factors while some will be weaker in its effect and will be easily affected by moderating factors. It is possibly true that dispositional variables vary in their permanency effect on individuals.

Some researchers question the sources of the dispositions. Davis-Blake and Pfeffer (1989) argued that dispositionalists who posit the existence of attitudinal and behavioral inertia must develop arguments about how and why attitudes and behavior are unchanging. Although there is some evidence for a genetic basis for some general personality characteristics e.g. extraversion (Rose, Koskenvuo, Kaprio, Sarna, & Langinvainio, 1988; Tellegen, Lykken, Bouchard, Wilcox, Seagal, & Rich, 1988), the evidence for a genetic basis for job attitudes is very limited. Although Davis-Blake and Pfeffer (1989) questioned the unchanging nature of dispositions, they did not at all refute against the possible impact of dispositions. They simply pointed out the problems in studying dispositions and the need for more studies to prove their effect.

In fact, more recently, it has been demonstrated that many traits have genetic origins. House et al. (1996), in their review of the dispositional research, discussed that individuals are born to have a proclivity to learn certain traits. The proclivity is

the innate capacity to be satisfied by certain kinds of behavior and experience. This innate capacity is referred as a need. Global traits then develop as a result of selective learning proclivities and social learning through association with pleasurable outcomes. Thus, people learn traits through life experiences, and what is learned is guided by genetic predispositions to a substantial degree. Over time, individuals develop global traits. There is substantial evidence that global traits are socially learned. Veroff (1969) found that the achievement motive is first manifested in children at about the age of five and can increase until the age of approximately twelve. Research on achievement motivation has demonstrated that the need for achievement becomes more salient when the situation cues such motives and their related behavior (McClelland, 1985). This indicated the interaction of situations but not disregarding the possibility of the direct effect of dispositions. The source of dispositions is not mystery any longer and many other researches reviewed above supported the predetermined nature of dispositions, which will affect individuals in the course of their life.

Three meta-analyses also provide support for the predictive validity of traits regarding organizational behavior. Hough, Eaton, Dunnette, Kamp and McCloy (1990) found that achievement correlated with education, job involvement, training, and nondelinquency. Monson, Hesley and Chernick (1982) have noted that personality is more predictive of behavior in ambiguous situations than in settings where role demands are so strong that behavior is externally determined regardless of personal dispositions. However, there is enough ambiguity in most job situations to allow individuals to interpret the context in ways that fit their own dispositions. Research has shown substantial individual variation in the way jobs are perceived,

even if formal job descriptions and tasks are relatively constant (O'Reilly, Parlette, & Bloom, 1980). Individuals will not enter job contexts in blank states. They own predetermined dispositions.

Pulakos and Schmitt (1983) demonstrated that preemployment expectations were a significant predictor of subsequent job satisfaction. Bem and Allen (1974) noted that the behavior of some but not all individuals is consistent across situations. Off-the-shelf measures of personality as well as easily collected demographic factors are usually added to surveys and experiments as moderating variable (Staw, Bel, & Clausen, 1986). However, there is not much thought given to the theoretical correspondence between dispositional variables and the organizational behavior they are intended to predict. Epstein (1979) noted that consistency can be increased dramatically with an increase in the number of observations as well as data aggregation. Consistency might also be high when the situation has remained constant or when the context is ambiguous enough to allow personal dispositions to be manifested. The predictive power due to the consistency nature of dispositions is supported and other nondispositional variables should be considered as interacting the effect of disposition.

Judge (1992) noted that disposition is a more general aspect of personality which is capable of characterizing most individuals. It influences individual perception, attitude formation, and behavior. Although there are lots of issues remain unsolved in the research of dispositions, Davis-Blake and Pfeffer (1989) realized that there has been a revival of empirical investigations of dispositional effects on individuals' attitudes and behavior in organizations. Observation, common sense, and

most contemporary psychologists agree that different kinds of people will exhibit different kinds of behavior in different situations (e.g. Schneider, 1983). Mowday and Sutton (1993 :208) commenting on the work of Pfeffer, a strong proponent of the situational approach, noted that “even Pfeffer’sbook proposes that individual attributes such as energy focus, sensitivity, and flexibility help people wield power effectively.” Barrick and Mount (1991) suggests that the relationships between personality traits and criterion variables are moderated, possibly by organizational contextual variables. So it is highly possible that dispositions will interact with other nondispositional variables and account for variation in psychological orientation of managers.

Although there remains unresolved issues under dispositional perspective, as for many other theories, we should go on with the effort to resolve the controversial issues by providing more empirical evidence. In fact, the literature reviewed in previous paragraphs has provided empirical findings that support the role of dispositions in explaining and predicting behavior, satisfaction, adjustment, and success in complex organizations (e.g. Hough et al., 1990; Pulakos & Schmitt, 1983; Veroff, 1969). House et al. (1996) further argued that the utility of dispositions as theoretical constructs should be judged by whether or not they can be specified, assessed and shown to predict behavior, even if it is in a particular situation, a set of situations, at one point in time, or all the time as long as adequate theoretical explanations are provided. This is the direction that this study follows.

Dispositional variables related to change orientation

Since this study focuses on factors for organizational change, relevant dispositional variables related to change orientation or organizational changes or development are to be identified. They should be theoretically supported or at least proposed with logical thoughts. Reviewing change literature, it is found that few studies directly measures the effect of dispositions on change orientation. Therefore, we need to infer from some relevant ones. The study of Hambrick et al. (1993) is quite a representative one which explores determinants of executive commitment to status quo. However, he studied only the direct effect of demographic variables. Many other researchers proposed the study of dispositions on managerial business decisions which involved change but they did not go on to gain empirical support. It may be due to the difficulties in the measurement because of the unobservable nature of dispositions. The difficulties can be overcome more readily nowadays as many instruments have been developed to measure dispositions.

Hambrick and Finkelstein (1987) proposed to study tolerance of ambiguity and locus of control. Gupta and Govindarajan (1984) proposed the study of six managerial characteristics on strategy and effectiveness, among which are dispositional variables of risk-taking and locus of control. They found that those managers in charge of the build strategy exhibited greater willingness to take risk and higher internal locus of control than were those in charge of the harvest strategy. Perry (1987) reviewed literature on psychology of entrepreneurs' specific characteristics and concluded that high-growth entrepreneurs appeared to have higher level of achievement need, independence, internal loci of control and lower risk-

taking propensity. Bartunek and Moch (1987) remarked the need of a cognitive perspective to help organization development professionals become more aware that their participative predisposition and the practical use of cognitive perspective. They stated that relatively little in the planned organizational change literature directly addressed this issue. Since many researchers proposed the study of dispositions, it implies the growing awareness of the importance of dispositions on organizational behavior and development. It requires more empirical studies to test and explain for the effect of dispositions.

Lewin and Stephens (1994) proposed an integrated model to study CEO attitudes as determinants of organization design, an activity of organizational change and development. The attitudes he proposed and hypothesized were need for achievement, machiavellianism, locus of control, egalitarianism, trust in people, tolerance for ambiguity, risk propensity and level of moral reasoning. Attitudes, in their study, are defined as enduring psychological properties of the individuals that are relatively stable across time and situation. They remarked that individuals with internal loci of control are likely to be proactive in redesigning their organizations since they strongly believe in their personal efficacy. People with low tolerance of ambiguity prefer to deal with minimum information from the environment, and to resist change. People with high tolerance for ambiguity are more likely to experiment, to try a variety of approaches and to seek diverse opinions. Individuals with high risk-propensity are willing to take risk and become restless in stable and certain situations. Individuals with low risk propensities attempt to minimize uncertainty and avoid high-stake problems.

Miller and Toulouse (1986) studied relationship between chief executive personality and corporate strategy and found that CEO need for achievement was related to broadly focused and marketing-oriented strategies. CEO with internal locus of control pursued more product innovation and tailored their approaches to circumstances facing their firms. Teoh and Foo (1997) found empirical support that many entrepreneurial decisions involved ambiguity in that these decisions resulted in actions that were innovative and original. Ray (1994) found that Singaporean entrepreneurs were decidedly more risk-taking than non-entrepreneurs with respect to business decisions. Schere (1982) found that the entrepreneurs displayed a greater tolerance of ambiguity than non-entrepreneurs. He also found empirical support that individuals with high need for achievement and internal locus of control were more likely to become entrepreneurs. Budner (1962) advocated that it is the ability to deal successfully with novelty or change which gives the potential entrepreneur.

After reviewing relevant literature on determinants of organizational changes, it is found that the four dispositional variables i.e. tolerance of ambiguity, locus of control, need for achievement and risk-taking are mostly proposed and studied. They are associated with entrepreneurial qualities that are receptive to innovativeness or changes or as organizational development strategies that requires changes. So in this research, it is intended to study the relationship between these four dispositional variables of managers and their psychological change orientation (i.e. receptivity to change). Tolerance of ambiguity, locus of control, need for achievement and risk-taking propensity have been studied separately in different researches. This study will offer an integrated view for these four dispositional variables.

Risk-taking :

One of the entrepreneurial qualities is risk-taking. Innovation and risk-taking can be considered important entrepreneurial dimensions (Kets de Vries, 1977).

Risk-taking propensity of people seems to relate to many variables leading to receptivity to change. Youthful managers will attempt the novel, the unprecedented, and take risks (Hambrick & Mason, 1984). Gupta and Govindarajan (1984) found that top executives who had a higher tolerance for ambiguity exhibited a greater willingness to take risks. Grimm and Smith (1991) found that leaders with internal locus of control tended to pursue more risky strategies than leaders with an external locus of control. It is useful to take out risk-taking propensity of managers as an individual dispositional variable to account for the effect on receptivity to change.

Risk-taking propensity has been conceptualized most frequently as an individual's risk-taking tendencies (Sitkin & Pablo, 1992). MacCrimmon and Wehrung's (1990) study of executive risk behavior conceptualizes risk-taking propensity in terms of "measures of willingness to take risk" and stresses consistent patterns of risk taking or risk aversion that influence how risks are evaluated and what risks are deemed to be acceptable. Individuals have a predisposition for taking or avoiding specific risks (Kogan & Wallach, 1964). Brockhaus (1980) hypothesized that the overall orientation of the individual toward risk would predispose some individuals (e.g. entrepreneurs) to undertake more risks than other individuals (e.g. bureaucrats). Various studies have suggested that higher level executives are not only able to, but are also inclined to influence others to take risks

(MacCrimmon & Wehrung, 1986; Shapira, 1986). It supports the assertion that this executives' disposition, risk-taking propensity, has impact on organizational change. The following hypothesis is thus formed.

H1: Managers having higher risk-taking propensity are more receptive to change.

Tolerance of ambiguity :

Tolerance of ambiguity is the ability to deal effectively, without experiencing psychological discomfort or threat, with situations or information that are vague, incomplete, unstructured, uncertain or unclear (Norton, 1975; Schere, 1982).

Tolerance of ambiguity may affect how individuals respond to uncertainty. Duncan (1972) emphasizes that organizational response is strongly influenced by the perceptual process, which, in turn, is affected by managerial characteristics such as tolerance for ambiguity. It is thus justified to measure tolerance of ambiguity as the psychological trait or disposition which underlies the ability to fulfil entrepreneurial role of uncertainty bearing (Schere, 1982). Gupta and Govindarajan (1984) found that top executives who had a higher tolerance for ambiguity exhibited a greater willingness to take risks. The uncertainty created by change creates ambiguity. Some individuals may have a very high tolerance for ambiguity and uncertainty so they may perceive situations as less uncertain than those having lower tolerance for ambiguity (Duncan, 1972). It is thus inferred that managers who have high tolerance of ambiguity will be more receptive to organizational changes. The following hypothesis is thus formed.

of ambiguity will be more receptive to organizational changes. The following hypothesis is thus formed.

H2: Managers having higher tolerance of ambiguity are more receptive to change

Locus of control :

An internal person is convinced that the outcomes of his behavior are the results of his own efforts. In contrast, the external person believes that the events in his life are beyond his control and should be attributed to fate, luck, or destiny (Miller, Kets de Vries, & Toulouse, 1982). Firms run by internals are likely to be found in heterogeneous environments. Internals are more activity oriented and more likely than externals to possess entrepreneurial qualities (Brockhaus, 1975; Durand & Shea, 1974; Miller et al., 1982). Grimm and Smith (1991) found that leaders with internal locus of control tended to pursue more risky strategies than leaders with an external locus of control. Miller et al. (1982) found a strong positive association between the innovativeness/riskness of firm strategy and the magnitude of the CEO's internal locus of control. Innovation and risk-taking can be considered important entrepreneurial dimensions. Internals are more prone to innovate, and innovations may take firms into new and different markets. Externals are likely to be more conservative and to stick with their old markets (Miller et al., 1982). Internals will be more receptive to change and risk-taking. Externals are more conforming and compliant than internals. When tasks or organizational demands require initiative and independence of action, the internal would be more suitable. Because internals believe in and seek personal control, they should exhibit less conformity than do

externals (Spector, 1982). It implies the more internal or the less external the locus of control of managers, the more receptive to change they will be. Therefore,

H3: Managers of higher internal locus of control are more receptive to change.

Need for achievement/Achievement Motivation :

Murray (1938) firstly used the term 'need for achievement' and 'achievement motivation' in his book *Explorations in Personality*. The two terms are used interchangeably since they are actually talking about the same thing. Chusmir (1989) defined 'need for achievement as competition with a standard of excellence'. Cassidy and Lynn (1989) had defined this term as 'the personal striving of individuals to attain goals within their social environment'.

McClelland (1961) presented cross-cultural findings that the high need for achievement person was seen as someone who sought novelty or new solutions to old problems. (McClelland & Winter, 1969) stated that men with high need for achievement typically show more initiative in researching their environment and search for new ways to try out their skills. They try out a greater number of new activities to find how well they are suited to them. McClelland (1965) found support for the hypothesis that need for achievement is a fairly stable personality characteristic which predisposes young men to enter entrepreneurial occupations. Based on previous research, that an individual manifesting a high need for achievement would attempt to engage in achievement-oriented behavior to a greater extent than would a low need for achievement individual (Steers, 1976).

McClelland (1965) found that 83% of the entrepreneurs in business had been high in need for achievement whereas 79% of the non entrepreneurs in business had been low in need for achievement. Veroff and Field (1970) argued that high need for achievement men are more alert to achievement-related aspects of their jobs than are their low need for achievement counterparts and are more quickly bored with routinized work. It is thus inferred that managers having high need of achievement are more receptive to change.

More recently, some Chinese scholars have paid more attention in achievement motivation. Yue and Yang (1987) developed two kinds of achievement motivation : the Individual-oriented Achievement Motivation (IOAM) and Social-oriented Achievement Motivation (SOAM). These two constructs are different not in meaning but their incentive source. Simply say, 'SOAM's goal or standard of achievement is mainly defined by others in membership groups. The incentive value of attainment of goal or standard of excellence is mainly determined in terms of membership group's evaluation or value judgement. While 'IOAM's goal or standard of excellence is mainly defined by self and the incentive value of goal attainment or standard of excellence is mainly determined in terms of one's own evaluation or value judgement (Yue & Yang, 1987, p.235). Yue (1996) holds the view that Chinese people have both kinds of achievement motivation and their relative strength are depending on the social situations. Westerners are mostly

subject to the effect of individual-oriented achievement motivation. It is worth to note the effect of these two kinds of achievement motivation in Hong Kong, a Chinese dominant society and a melting cultural point between east and west. Therefore, the following hypothesis is formed.

H4 : Managers having higher need for achievement, whether social-oriented or individual-oriented, are more receptive to change.

Moderating effect of demographic characteristics - age and tenure

It is to note that both dispositions and demographic characteristics are personal attributes which affect directly or indirectly the change orientation. Demographic features refer to the compositional characteristics and observable elements of individuals such as age, sex and tenure and they describe the backgrounds of the individuals. The demographic characteristics predicts the perspective and interpretations of individuals. The demographic approach builds on research that has found a link between demographic characteristics and specific beliefs, values and abilities (Wierssema & Bantel, 1992). Age has found to be negatively related to making risky decisions (Carlson & Karlsson, 1970; Vroom & Pahl, 1971). This shows some significant relationship between demographic characteristics and dispositions of an individual.

There are two demographic variables which are consistently found to be related to organizational changes. Top managers' age and tenure reduced the likelihood of change (Rajagopalan & Datta, 1996; Grimm & Smith, 1991; Wiersema

& Bantel, 1992). Longitudinal case studies of organizational change associated with the appointment of a new CEO (Pettigrew, 1990). New CEO is short-tenured and that implies short-tenured executives will be more prone to organizational changes.

Younger managers apparently are more flexible and willing to sustain the risk of change. Age has been found to be negatively related to the ability to integrate new information (Taylor, 1975) and to make risky decisions (Carlson & Karlsson, 1970). It implies that managers will make less risky decisions in association with increasing age. Age, on the other hand, is moderating the risk-taking propensity of individual managers. Similarly, low age and short organizational tenure are significantly associated with strategic change. Accordingly, younger managers who are shorter tenured are more receptive to change. In order to control for the effect of outsider succession which may have high correlation with short organizational tenure, and the high correlation between age and job tenure, industry tenure will be used. Hambrick et al. (1993) found that industry tenure surmounted the effect of organizational tenure in shaping an executive's commitment to the status quo. It is worthwhile to continue his effort in studying the effect of industry tenure.

Demographic characteristics are found to be in itself independently affect the change experience of individuals, but when studied together with the stable and predetermined nature of the dispositions, different findings may result. It is assumed that every individual will develop the four dispositional characteristics in our study earlier in their life cycle. When the demographic characteristics (e.g. age and tenure) take more effect later in their career life, and in fact tenure effect only happens when individual enter career life, they would be changing or moderating the

effect of those direct, mature and stable dispositions. This is the area to explore and confirm.

MacCrimmon and Wehrung (1990) found that more mature decision makers (in terms of age and seniority) were consistently more risk averse than those who were less mature. Hambrick and Mason (1984) argued that a manager's age is an indicator of individual flexibility and risk-taking propensity. As people grow older, they become more inflexible to change and take fewer risk. The predisposition effect of risk-taking can be said to be moderated by age and tenure. There is the argument that dispositional effects are most likely to surface in "weak" situations and are least likely to operate in "strong" situations (Mischel, 1968; House et al., 1996).

Organizational transformations, structural changes, cultural changes and other organizational situations that are unstable, ambiguous, and confusing for individuals are examples of weak situations. In Hong Kong's present changing environment, weak situations are dominant. It provides a good opportunity to note the effect of dispositions on organizational behavior.

Although age and tenure are often positively correlated, they are usually studied separately in many other studies in relation to change orientation. In the study of Wierssema and Bantel (1992), positive relationship has been found between age, tenure and strategic change. However, Hambrick et al. (1993) found that executive age was not statistically related to commitment to status quo after controlling for industry and organizational tenure. It may be that industry tenure is a proxy for an executive's age. It is argued that age reflects more the effect of the physiological or personal life-cycle interpretations of change orientation of an

individual while industry tenure reflects more the effects of a deeply shared 'social construction of reality' (Burrell and Morgan, 1979) in affecting the executive's open-mindedness toward change. In this regard, age and tenure may explain for different effects in research. Since it is not yet confirmed whether age and tenure are two similar or separate variables, it is worthwhile to explore the effects of the two demographic variables together as well as separately in this study.

The independent effects of the four dispositions in this study on receptivity to change have been proposed. Now when studying together with the demographic variables of age and industry tenure, the following hypotheses are further proposed.

H1a : Managers having higher risk-taking propensity are more receptive to change and this positive relationship is weaker with increasing age or industry tenure.

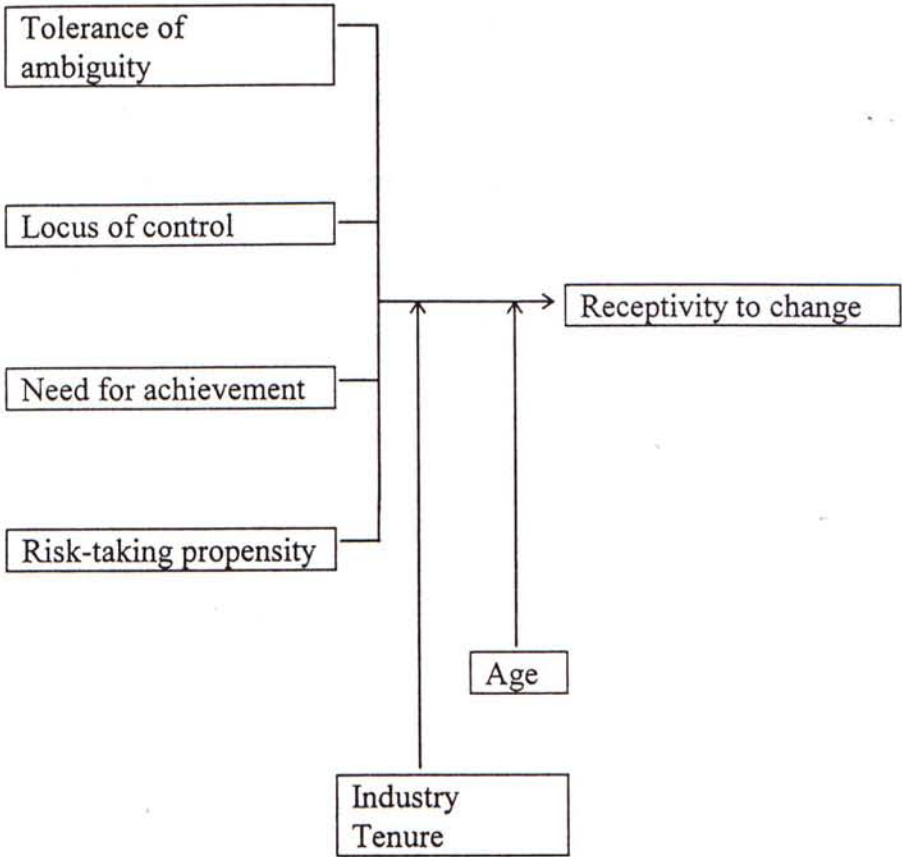
H2a : Managers of higher tolerance of ambiguity are more receptive to change and this positive relationship is weaker with increasing age or industry tenure.

H3a : Managers of higher internal locus of control will be more receptive to change and this positive relationship is weaker with increasing age or industry tenure.

H4a : Managers with higher need for achievement, whether social-oriented or individual-oriented, are more receptive to change and this positive relationship is weaker with increasing age or industry tenure.

The direct effect of dispositions to receptivity to change and their moderating effect with demographic variables are presented more precisely in the following conceptual model (Refer to Figure 1)

Figure 1
The conceptual model



Change experience and receptivity to change

Some literature provides support that managers learn from actual change experience, which in turn will affect their receptivity to change. The main contribution of case studies (Gersick, 1994; Meyer, Brooks, & Goes 1990; Yetton, Johnston, & Craig 1994) is the finding that the relationship between managerial actions and changes in the content of strategies is not unidirectional. They found that managers appear to learn from ongoing changes and use this knowledge to modify or reinforce their subsequent actions. Stevens et al. (1978) found that a manager who

valued change positively would be more disposed to perceive a change in employers or organizations as an acceptable response to increased costs of participation than a manager who disliked the idea of change. It is thus argued that the actual organizational change experience of Hong Kong managers will have effect on their receptivity to change. Information on measuring the magnitude of different organizational changes and the favorable level of managers towards each type of change were collected to test the following hypothesis.

H5 : The more the favorable experience managers find for their organizational changes, the more they are receptive to change.

It is worth to test such hypothesis in addition to the dispositional variables under study. While dispositions measure some predetermined personality traits or attitude, measuring attitude towards actual change experience provides additional practical information on their receptivity to change.

Chapter III

RESEARCH METHOD

Samples and procedures

Target participants of this research were managers from business firms in Hong Kong. The questionnaires were distributed through a snowball sampling method. This technique is used when a population listing is unavailable and cannot be compiled (Fint, 1995). There is no formal statistics in Hong Kong that shows the composition and size of managers in various industries in Hong Kong. A relevant sampling frame is difficult to obtain. Snowball sampling is a viable way to address some of these difficulties justified by limited cost and time. Since the target participants are all managers, they should be proficient in English and so the questionnaire is in English. Fifteen managers from seven randomly distributed industrial sectors (Refer to table 1) were identified and helped distribute the questionnaires with instructions given.

Before distributing the questionnaires to the managers, the fifteen managers were invited for pilot testing. They were briefed on the research purpose and invited to fill in the questionnaires. After they had returned the questionnaires, some revisions were made in response to their feedback in order to improve the presentation and the expression of the questionnaires. The managers were given instructions before they made further distribution. They were advised to distribute randomly to executives of both sexes, different ages, tenures, and educational levels as well as in various industries, functional areas and management levels.

In order to enhance the response rate, an invitation letter signed both by the research supervisor and the author and together with a stamped envelope were enclosed. Participants were further given the option to attach their business cards if they were interested in obtaining a summary of findings. Their information was assured to be kept strictly confidential and they could send back the questionnaires directly to the author.

The sample size of this research is 450, and 220 returned their questionnaires. Five of them were unusable. The effective response rate is 49%.

The fifteen key subjects reported that they could find less women than men, much less managers from manufacturing and construction industries but a lot more from the service industries. They also found less managers in the functional areas of production and operation, research and development, computer and information system and a lot more managers were under 40 years of age. They could gain access to only a few managers at senior level. Most of the managers have obtained degrees. They also tried to distribute the questionnaires to managers of less than one year's industry tenure to those of over 30 years. On average, 40% to 60% of the respondents receiving questionnaires from each of the fifteen key subjects completed and returned the questionnaires. That information could be noted because different and not easily observable remarks had been made to different sets of questionnaires. The profile of non-respondents, though not specifically defined, was similar to that of the respondents (Refer to Table 1)

Table 1
Descriptive statistics of research sample

n= 215		
	N	
Gender :		
Male	123	57.2 %
Female	92	42.8 %
Education attained :		
Secondary	15	7 %
Post-secondary	40	18.6 %
Bachelor degree	93	43.3 %
Post-graduate degree	65	30.2 %
Functional areas of current job :		
Accounting	24	11.2 %
Finance	22	10.2 %
Marketing	47	21.9 %
Human Resource	34	15.8 %
Production and Operation	10	4.7 %
Research and Development	4	1.9 %
General Management		
/Administration	45	20.9 %
Computer/Information		
System	20	9.3 %
Industries :		
Manufacturing	20	9.3 %
Wholesale, Retail, I/E	34	15.8 %
Banking, Finance or Insurance	57	26.5 %
Construction/Architecture	7	3.3 %
Restaurants/Hotel/Catering		
Service	12	5.6 %
Airline/Shipping/Transportation	36	16.7 %
Real Estate/Business Services	32	14.9 %
Management levels :		
Senior	14	6.5 %
Middle	89	41.4 %
Junior	98	45.6 %
Age :	Mean	Mode
(Refer detailed frequency		
count and percentage to		
Appendix A)	34	30
Industry tenure :	8.8	6
(Refer detailed frequency		
count and percentage to Appendix B)		

The whole 5-page questionnaire is attached in Appendix C. Items 1 to 30 of Part I of the questionnaire measure the internal and external locus of controls while items 1 to 20 of Part II measure the social and individual-oriented achievement motivation. Items 21 to 24 of Part II measure the risk-taking propensity and items 25 to 28 of Part II measure the tolerance of ambiguity. Items 29 to 37 of Part II are for measuring the receptivity to change. Part III measures the degree of organizational changes and the favorable level of managers to each type of change. The final part of the survey is the basic demographic data of participants.

Measures and instruments

Receptivity to Change (Dependent variable) :

The dependent variable in this research is receptivity to organizational changes. No established instrument can be found to capture this construct since few studies have discussed this variable. Therefore, the items have to be developed. In order to enhance the validity, the items were inferred from relevant literature on strategic or organizational changes. The following paragraphs introduce and explain for the sources of the literature where the items of the scale 'Receptivity to Changes' were inferred and developed. Altogether nine items were developed for this purpose. Table 2 summarizes the items.

Item One

Innovation represents a strategic change (Cooper & Schendel, 1976). Champions are individuals who informally emerge to influence or promote an innovation within organizations (Hoffman & Hegarty, 1993; Howell & Higgins, 1990). Champions versus non-champions tend to possess different values and leadership styles. The following statement was formed to demonstrate the proactive belief of champions and to form one item for the scale of 'Receptivity to Change'.

'Managers should initiate and promote company changes in their company'

Item two & three

A well known premise in the literature on organizational change is that members will not be receptive to change unless they are dissatisfied with the current situation (Kimberly & Quinn, 1984). Accordingly, if people are satisfied with the current situation, they will be less receptive to change. The following two items were thus developed :

'I am satisfied with the current work situation so I do not want any change'

' I prefer to work in a stable work environment'

Items four to six

Executive commitment to the status quo derives both from the individual's preferences as well as from knowledge (Hambrick et al., 1993). One can be committed to the status quo, believing that the organization ought to continue just as it is, because one values the current state of affairs and would incur a loss if there were changes (Hambrick et al., 1993). Three items were developed accordingly as follows :

'I believe that my company should continue just as it is now because it is well-established.'

'Frequent changes to my organization do more harm than good.'

'Companies should aim at stability rather than changes because it is good to employees.'

Item seven

Environmental scanning involves the acquisition of information on environmental trends or events which may prove critical to developing new ideas (Hoffman & Hegarty, 1993). Diversity in information sources and perspectives suggests differentiation in an organization's belief structure that in turn leads to a

perception of the feasibility of change and a momentum toward change (Dutton & Duncan, 1987). The following item was formed :

‘Managers should frequently acquire information on environmental trends for developing new ideas’

Items eight & nine

It appeared that managerial cognitions in the strategic change process manifest themselves primarily along two dimensions (Raiagopalan & Spreitzer, 1996). They were

- a) perceptions of the environmental/organizational conditions and changes therein as opportunities (Dutton & Jackson, 1987).
- b) perceptions of the need for change and ability to change (Dutton & Duncan, 1987).

Wiersema and Bantel (1992) remarked that the ability of an organization to anticipate and respond to opportunities or pressures for change, both internal and external, is one of the most important ways in which its competitiveness and viability are ensured. Two more items were formed accordingly as follows :

‘Continuous change is necessary to organizational development of a company’

‘Managers should normally support both incremental and radical changes of their company’

Table 2
Items for receptivity to change

-
1. I am satisfied with the current work situation so I do not want any change .
 2. I prefer to work in a stable work environment.
 3. I believe that my company should continue just as it is now because it is well-established.
 4. Companies should aim at stability rather than changes because it is good to employees.
 5. Frequent changes do more harm than good to a company.
 6. Managers should frequently acquire information on environmental trends for developing new ideas.
 7. Managers should initiate and promote changes in their company.
 8. Continuous change is necessary to organizational development of a company
 9. Managers should normally support both incremental and radical changes of their company.
-

A likert scale of 1 to 5 was used where 1 indicated strongly disagree and 5 indicated strongly agree. Items one to five of the scale 'Receptivity to Change' were reversed to capture information in the same dimension. Reliability of the 9-item scale was .7045.

Actual organizational change and change experience :

Organizational changes represent the real-life situations. Managers were asked to indicate their favorable level of each change. It was to explore if there was any relationship between the favorable perception and receptivity to change. The types of change developed to measure the commitment to status quo by Hambrick et al. (1993) were adapted. The items were identified from the common growth or business development strategies in their research and have been used to represent organizational changes of a more radical nature (e.g. acquisition or downsizing). Much other literature on organizational changes relates changes to four major

subsystems of work setting. They are organizing arrangements, social factors, technology and physical setting. Porras (1987) further identified the components of these four major subsystems in his stream organizational model. The components, in addition, were used to form items presenting different types of organizational changes. Table 3 summarizes the different types of organizational changes used in this study.

Table 3
Different types of organizational changes

Business growth strategies :
acquisitions/mergers
internal development of new business
internal development of new products/services in existing businesses
development of new geographic markets (including international)
actions to increase market share in existing products/markets
joint ventures with other firms
Business development strategies :
downsizing
Change in organizing arrangement :
company goals
company strategies
organizational structure
administrative policies & procedures
reward system
performance appraisal system
Change in social factors :
organizational culture
management style
Change in physical setting :
interior design/physical setting
Change in technology :
tools, equipment & machinery
technical systems
job design
work flow & procedures
production process/operations

For each type of organizational change, a 5-point likert scale was used to measure the magnitude of change where 1 indicated low degree of changes and 5 indicated a high degree of change. Managers responded by circling the scale which they found mostly represent the magnitude of each change in their organization in the past year. Simultaneously, a 5-point likert scale was used to measure the favorable

level managers found for each type of change where 1 indicated highly unfavorable and 5 indicated highly favorable. Managers were expected to indicate how favorable to them their experience of each organizational change. If they reply highly favorable towards a type of change, it implies that they like such change to take place.

Risk-taking propensity :

There were many attempts to develop risk measures but that no measure of risk propensity was free of problems (MacCrimmon & Wehrung, 1990). Researchers either used students as subjects or used situations that seemed unrelated to actual managerial risk-taking. Kogan & Wallach (1964) developed the choice dilemmas questionnaire (CDQ) to obtain probability preference in everyday life situations. On this test a subject was presented with 12 hypothetical situations. Each item required the respondent to choose between a safe alternative and a more attractive but risky one. The reliabilities were .53 for the men and .62 for the women in their study. There were some other scales that were not directly measuring risk-taking but rather for risk-aversion (Gomez-Mejia & Balkin, 1989). The risk-taking propensity scale in this study was based on the original research of Slovic (1972), which was adapted by Gupta and Govindarajan in 1984. The modified version used consisted of four items that measured the extent to which the participant agreed (using a five-point scale). The reliability (alpha coefficient) of this scale was .91. With this high reliability and less items, this scale was chosen for our study. A 5-point likert scale was used where 1 indicated strongly disagree and 5 indicated strongly agree, and a straight average of the responses to the four items was used as a

measure of risk-taking propensity. The reliability (alpha coefficient) for this study was .7251.

Tolerance of ambiguity (TOA) :

Norton (1975) developed a scale for measuring Ambiguity Tolerance and the internal reliability was .88. It contains 50 items which is long. MacDonald (1970) revised the scale for ambiguity tolerance to a shortened one of 20-items, using a dichotomous scale. Respondents have to mark true or false for each item. The reliability of this 20-item scale was .86. However, the logic of some items were found to be difficult to follow (e.g. 'I would rather bet 1 to 6 on a long shot than 3 to 1 on a probable winner' and 'If I were a doctor, I would prefer the uncertainties of a psychiatrist to the clear and definite work of someone like a surgeon or X-ray specialist'). Another scale was developed by Lorsch and Morse (1974) and it contained 7 items. Four items of it were later adapted and used by Gupta and Govindarajan (1984) in their research on strategic business unit effectiveness. The alpha coefficient for these four items was .84 in their research. Regarding this high reliability and less question items as well as that the language is more direct, this scale is easier to use. A 5-point likert scale was used where 1 indicated strongly disagree and 5 indicated strongly agree, and a straight average of the responses to the four statements was used as a measure of tolerance for ambiguity. The reliability (alpha coefficient) of this scale for this study was .4251.

Locus of control (LOC) :

Many established scales have been used to measure this construct in the past. The organizational studies have been dominated by the use of Rotter's (1966) I-E scale of general locus of control. However, Spector (1988) noted that the relations between I-E and work-related variables have been rather modest for that scale. Some content themes of certain items dwell on school-related themes and are not global in their referents. Phares (1976) noted that this scale is a rough measure. The administration time for this scale was judged to be excessively long (Valencha & Ostrom, 1974). It contains 29 items and each item contains two statements. The reliability was .69 for the original scale (Schmidt, 1967). Two more previous established questionnaires have been reviewed : the Strategic Locus of Control scale developed by Hodgkinson (1992) and the Work Locus of Control Scale (WLCS) by Spector (1988). However, both scales are rather domain specific and do not suit our purpose of studying the general disposition. The WLCS is specially concerned with the work domain while Strategic Locus of Control is developed specifically for investigation locus of control beliefs in relation to issues of strategic management. These two scales have not been widely used before.

This study has chosen the Locus of Control Inventory developed by Levenson (1972) and adapted by Pareek (1992). The Kuder Richardson reliabilities (coefficient alpha) were .64, .77 and .78 respectively in their study. The scale was designed to measure internality and externality in the organizational context and have been used in many organizational studies. It measures internality (I), externality-others (EO) and externality by chance (EC). This scale is chosen because of its relevance to

organizational setting and it covers a broader scope (seven areas i.e. General, Success or Effectiveness, Influence, Acceptability, Career, Advancement and Rewards). The slightly higher reliability for EO and EC and the close reliability of I of .64 to .69 of Rotter's (1966) I-E scale are two more favorable reasons for our choice. It is also regarded as easier to complete because it contains 30 one-statement items. A 5-point likert scale was used where 1 indicated strongly disagree and 5 indicated strongly agree.

The "I" scale measures internal locus of control. The higher the "I" score, the more individuals tend to believe that they are generally responsible for what happens to them. The "EO" scale measures external locus of control on others. The higher the "EO" score, the more they tend to believe that powerful other people determine much of what happens to them. The "EC" scale measure external locus of control by chance. The higher the "EC" score, the more they tend to believe that chance or fate plays a large role in what happens to them. Surti (1982) reported a highly significant coefficient of correlation (.70) between EO and EC and correlation values of .00 and .06 between I (Internal locus of control) and EO and between I and EC respectively. Similarly, in current study, the coefficient of correlation between EO and EC is relatively high of .4544. It is thus suggested to aggregate the scale to avoid multicollinearity in subsequent regression analysis that may cause inflated result. The reliability alpha coefficient estimate of external locus of control after the aggregation became .8262, while that for the internal locus of control was .7002.

Achievement Motivation :

Several instruments have been reviewed. When the behaviorally - based measure of manifest needs in work settings was developed by Steers and Braustein (1976), it was widely applied in research. However, it does not specifically measure the need for achievement. It also measures need for autonomy, affiliation and dominance which do not suit the need of our study. Another scale being reviewed is the measure of managerial need for achievement developed by Fineman (1975). It is work related but is constructed for British managerial populations. There are many attempts to develop scales that tend to give a quick measure of achievement motivation (e.g. Smith 1973; Lynn 1969). As mentioned above, more recently, two Chinese scholars Yue An-bang and Yang Kuo-shu (1987) developed two kinds of achievement motivation : the Individual-oriented Achievement Motivation (IOAM) and Social-oriented Achievement Motivation (SOAM). The instrument developed by them is considered the most relevant choice.

The original version of the achievement scale developed by Yue and Yang (1987) contains 60 questions, 30 items for IOAM and 30 items for SOAM. Later, a shorter version was developed by Yang and Cheng (1987). This shorter version uses a four point likert scale which contains 20 items. 10 items measure the individual-oriented achievement motivation, and the other 10 items measure the social-oriented achievement motivation. The reliability of the shorter IOAM and SOAM scale were reported to have .78 and .73 respectively. In order to retain the scale consistency throughout the questionnaire for this study, a 5-point likert scale was used where 1

indicated strongly disagree and 5 indicated strongly agree. The original version of this scale was in Chinese. Since the current survey is in English, it required translation to English and back translation to see its validity. The items were first translated into English by a translator. Then the translated English version was translated back to Chinese by another translator. The first translator interpreted the meaning of the items to check whether it presented well the meaning of the original items. Several of the key subjects were also invited to interpret the meaning of the English version to check whether it was clear to them. The need for back translation is to attain various types of equivalence of measures e.g. vocabulary and conceptual equivalence as discussed in the study of Sekaran (1983). With the help of professional translators, this objective is achieved for this study. The development of Chinese and English language takes place in different cultures. The meanings and usage of the languages may differ in different cultures. Good back translation can ensure that the language of the instrument is equivalent to the original language in which the instrument is developed. The higher the score represents the higher the need for achievement for both kinds of achievement motivation. The reliability alpha coefficients for this study were .7128 for SOAM and .7193 for IOAM. They are quite similar to those of the original study taken by Yue and Yang (1987).

Table 4
Reliabilities of the scales of independent variables

Variable:	Alpha
Risk-taking propensity	.7251
Tolerance of Ambiguity	.4251
Internal locus of control	.7002
External locus of control	.8286
Social-oriented achievement motivation	.7128
Individual-oriented achievement motivation	.7193

Age and industry tenure :

Tenure can refer to industry tenure, organizational tenure and functional or professional tenure. In this study, tenure considers the number of years of the managers in the current industry, organization and function respectively. Most studies on change experience note the effect of organization and industry tenure. Managers work in the same organization will represent the same tenure they are in the same industry. However, when managers work in the same industry does not mean that they will work in the same organizations. Industry tenure is thus considered in this study. The issue is more complicated when comparing functional tenure and industry tenure. There would be situations that managers work longer in the same functional area than they work in the same industry. It would also be true that managers work longer in the same industry than they work in the same functional area. Considering that there are more studies between industry tenure and change orientation and that the emphasis of this study is on the length and not types of working experience, industry tenure, may be proxy for functional tenure, is simply chosen for this study. Absolute value were obtained for age and industry tenure.

They were measured by asking 'Your age based on last birthday' and 'How long have you worked in your current industry?'.

Control Variables :

We include some variables which, with reference to previous literature, may have an effect on receptivity to change.

Functional background

Waller, Huber and Glick (1995) supported findings that functional background does influence the categories of organizational effectiveness in which changes are perceived. Top management functional expertise has been found to be a source of influence on strategic decisions (Hoffman & Hagarty, 1993). Information on their functional background (e.g. accounting, finance, marketing, personnel, production and operations, research and development, and sales) was obtained for this study.

Educational level

Educational level has been viewed in the management literature as an indicator of an individual's various cognitive orientations (Rajagopalan & Datta, 1996). Empirical research has found positive relationships between educational levels of senior executives and the amount of innovation and strategic change in their organizations (e.g. Kimberly & Evanisko, 1981; Wiersema & Bantel, 1992).

Specifically, researchers have equated a high attained level with greater capacity for information processing and receptivity to innovation (Wiersema & Bantel, 1992). Education was divided into four levels (i.e. secondary, post-secondary, bachelor and post-graduate) for this study.

Industry types

In the study of Hitt and Tyler (1991), it was found that industry and executive characteristics produced statistically significant main effects on strategic decisions. Spender (1989) explained that industry characteristics may contribute to the development of managerial orientations in the form of an industry recipe. Therefore, the effect of industry types has to be controlled in this study.

Level of executive

Ireland, Hitt, Bettis and Porras (1987) found that managers at different levels had distinctly different perceptions of the firms strengths and weaknesses and of environmental uncertainty. It does imply that managers at different level may have different psychological orientation. The management level in this study was divided into three levels i.e. lower, middle and senior.

Statistical power

According to Cohen (1988), he states that the medium effect size of regression analysis should be set at .15, and the statistical power should have about 0.8. In the present regression analysis, including the control variables, the analysis will have at most 14 variables regressed against the dependent variable. According to Cohen (1988), a sample of 134 cases in a research is justified to have the above-mentioned effect size and statistical power. In this study, 215 cases should satisfy the minimum requirement of the statistical power. Furthermore, Brown and Tinsley (1983) had once stated that 'a conservative rule-of-thumb in multivariate research is that the number of subjects should be ten times the number of variables.' (p.293). Under this logic, 215 samples can also satisfy this requirement.

Analysis strategy

With response to the receptivity to change, we wanted to control for response biases due to different demographic background, one-way analysis of variance was performed to test the control variables of more than two levels including four educational levels, seven industries, eight functional areas and three management levels. Table 5 summarizes the results. From the results, we noticed that education and industries significantly influenced the participants in their receptivity to change.

Table 5
one-way analysis of variance testing of demographic data

Variable	F	Level of significance
Education	8.626	.0000
Management Level	.3963	.6734
Functional Areas	.8550	.5556
Industry	3.2044	.0051

Hypothesis testing was done by hierarchical multiple regression analysis. Since education and industry types were found to be significantly different in group means (refer to table 5), they have to be controlled and were entered into step one of the regression analysis. Since they were categorical variables, they were treated as dummy variables. There were four educational groups and seven industry groups. When entering for statistical analysis, the four educational groups were further grouped into two groups to become secondary and degree level groups. The seven industry groups were also reduced to two groups. Manufacturing and construction/architecture were grouped under secondary industrial sector and the rest of the industries was under service industrial sector. This classification was based on Hong Kong Monthly Statistics Digest (June, 1998), referring to the production-based Gross Domestic Product at factor cost by economic activity. The two industrial sectors were representing two different industrial environments. Each group was coded as 0 and 1, with 1 means presence of the feature of that group, while 0 means absence. Group 1 of each variable represents a reference group where it receives all

zeros and it is used as a base of comparison. The regression coefficients for the dummy variables represent deviations from the comparison group on the criterion variable (i.e. receptivity to change) for this study.

The main independent variables were entered in step two and finally all the interaction terms were entered in step three. The interaction terms were the multiplicative terms of the studied dispositional variables (i.e. risk-taking propensity, tolerance of ambiguity, locus of control and achievement motivation) with the moderators (i.e. age and industry tenure) in this study. Meanwhile the variances accounted for by each group of variables were noted from each step.

The moderating effects of age and industry tenure were studied together in the same model as well as separately in different models. Three hierarchical multiple regression analyses were worked out accordingly. The form of interacting effect, if found significant, will be studied using subgroup analyses of high age and low age groups as well as high tenure and low tenure groups. Moderation plots will be drawn to see the form of interacting effect.

There are four assumptions in the regression analysis, the linearity that is an assumption about how well a straight line fits the data; whereas the equality of variance is about the spread of the residuals. For the assumption of independence of error, it is to check the correlation of the error terms. Finally, the normality assumption is about whether the distribution of the residual appears to be normal. When there are violations of these assumption, they will affect the analysis and the results. To check whether these assumptions were violated, this study used a

standardized residual plot (Refer to Appendix D) to show whether there was a violation. The plot indicated that residues were randomly distributed, with relatively equal dispersion about zero and no strong tendency to be either greater or less than zero. Likewise, no pattern was found for large versus small values of the independent variable. The normality assumption was tested by a normal probability plot of standardized residuals (Refer to Appendix E). As shown in Appendix E, the values fall along the diagonal with no substantial departures. The residuals are considered representing a normal distribution. It was concluded that no assumption was violated.

Chapter IV

RESULTS

Means, standard deviation and correlation

Means, standard deviations, and correlations for all variables, based on the sample, are presented as Table 6.

The simple correlations in Table 6 suggest, as hypothesized, that many of dispositional variables and the moderating variables are significantly related to the receptivity to change. However, these results are only suggestive, awaiting further multivariate analysis.

Table 6
Means, standard deviations, and correlations of independent and dependent variables

	Mean	s.d.	1	2	3	4	5	6	7	8
1. Receptivity to change	3.52	.67								
2. Risk-taking	3.04	.80	.40**							
3. Tolerance of ambiguity	3.33	.56	.39**	.45**						
4. Internal LOC	3.70	.47	.16*	.041	.21**					
5. External LOC	3.22	.48	-.03	-.30**	-.24**	-.33**				
6. SOAM	3.02	.52	-.25**	-.31**	-.14*	.14*	.31**			
7. IOAM	3.85	.46	.24**	.20**	.22**	.39**	-.05	.15*		
8. Age	34.11	5.73	-.19**	-.07	-.06	.16*	-.16*	.08	.22**	
9. Industry tenure	8.64	6.07	-.30**	-.28**	-.20**	.05	-.07	.14*	.06	.66**

* p< 0.05

** p<0.01

Regression results

Table 7
Results of hierarchical regression analysis of the dispositional variables
on receptivity to change with interaction with age and industry tenure

Variables	Model One	Model Two	Model Three
	B	B	B
Control variables			
Education level	.36**	.13	.08
Industry group	-.11	-.08	-.00
(Constant)	3.35**		
Independent variables			
Risk-taking		.14**	.84*
TOA		.18**	-.70
Internal LOC		.16*	.40
External LOC		.21**	-.13
SOAM		-.22**	-.09
IOAM		.20*	.25
Age		-.01	-.01
Industry tenure		-.00	-.01
(Constant)		1.50**	
Interaction variables			
age * risk-taking			-.02
age * TOA			.03*
age * internal LOC			-.01
age * external LOC			.00
age * SOAM			.01
age * IOAM			-.00
Industry tenure * risk-taking			.00
Industry tenure * TOA			-.03
Industry tenure * internal LOC			.03
Industry tenure * external LOC			.03*
Industry tenure * SOAM			-.04**
Industry tenure * IOAM			-.01
(Constant)			1.99
R ²	.10	.35	.45
Adjusted R ²	.09	.32	.38
R ² Change	.10	.25	.10
F Change	10.97**	8.88**	2.48**

*p<0.05, **p<0.01

Table 7 reports regression results for control variables, independent variables and interaction variables with age and industry tenure together. When considering the control variables only as in Model 1, the education level was significantly and positively related to receptivity to change while industry group was not. When it was broadened to examine the dispositional variables, age and industry tenure as in Model 2, all control variables became insignificant. All dispositional variables were significantly and positively related to receptivity to change except that SOAM was negatively related. Age and industry tenure became insignificant. When all the interaction variables were entered into analysis in Model 3, only the main effect of risk-taking propensity was found positively related to receptivity to change. Tolerance of ambiguity interacting with age, external locus of control interacting with industry tenure were found to be positively related to receptivity to change and that SOAM interacting with industry tenure was found to be negatively related to receptivity to change. It confirms that the higher the risk-taking of managers, the more they are receptive to change. It is also true that tolerance of ambiguity is moderated by age while locus of control and achievement motivation are moderated by industry tenure.

Referring to change of variance as in Table 7, the control variables (industry and education) significantly accounted for the variance of 10 %. When dispositional variables, age and industry tenure were added, the added variance significantly being accounted for became 25%. When all interaction variables were added, the added variance significantly being accounted for was 10 %, adding up to a total of 45%.

Table 8
Results of hierarchical regression analysis of the dispositional variables
on receptivity to change with interaction with age

Variables	Model One B	Model Two B	Model Three B
Control variables			
Education level	.36**	.14	.14
Industry group	-.11	-.08	-.00
(Constant)	3.35**		
Independent variables			
Risk-taking		.14**	.79**
TOA		.19**	-.30
Internal LOC		.16*	.37
External LOC		.21**	-.12
SOAM		-.22**	.53
IOAM		.20**	.41
Age		-.01*	.09
(Constant)		1.52**	
Interaction variables			
age * risk-taking			-.02*
age * TOA			.01
age * internal LOC			-.01
age * external LOC			.01*
age * SOAM			-.02
age * IOAM			-.01
(Constant)			-.62
R ²	.10	.35	.41
Adjusted R ²	.09	.32	.36
R ² Change	.10	.25	.06
F Change	10.97**	10.17**	3.02**

*p<0.05, **p<0.01

Table 8 reports regression results for control variables, independent variables and interaction variables with age. When considering the control variables, the same results were shown as in Table 7. When taking the dispositional variables and age into account as in Model 2, it was again found that all tested dispositional variables

were positively related to receptivity to change except that SOAM and age were negatively related. When all interaction variables with age were taken into analysis, risk-taking propensity remained a positive determinant. Risk-taking propensity interacting with age was also significant but negatively related to receptivity to change. External locus of control interacting with age was positively related to receptivity to change. Again, it confirms that the higher the risk-taking propensity of managers, the more receptivity to change they are. Meanwhile risk-taking propensity and locus of control are significantly moderated by age.

Referring to significant change of variance in Table 8, the control variables (industry and education) significantly accounted for the variance of 10%. When dispositional variables and age were added, the added variance significantly being accounted for was 25 %. When all interaction terms are added, the added variance significantly being accounted for was 6%, adding up to a total of 41% for this regression analysis.

Table 9
Results of hierarchical regression analysis of the dispositional variables
on receptivity to change with interaction with industry tenure

Variables	Model One B	Model Two B	Model Three B
Control variables			
Education level	.36**	.13	.09
Industry group	-.11	-.09	-.05
(Constant)	3.35**		
Independent variables			
Risk-taking		.13**	.23*
TOA		.19**	.18
Internal LOC		.15	-.01
External LOC		.23**	-.03
SOAM		-.22**	-.09
IOAM		.18*	-.15
Industry tenure		-.01	-.00
(Constant)		1.26*	
Interaction variables			
Industry tenure * risk-taking			-.01
Industry tenure * TOA			-.01
Industry tenure * internal LOC			.02
Industry tenure * external LOC			.03**
Industry tenure * SOAM			-.04**
Industry tenure * IOAM			-.01
(Constant)			1.60**
R ²	.10	.34	.40
Adjusted R ²	.09	.31	.35
R ² Change	.10	.24	.06
F Change	10.97**	9.75**	3.01**

*p<0.05, **p<0.01

Table 9 reports regression results for control variables, independent variables and interaction variables with industry tenure. When considering the control variables, the same results were shown as in Table 7 and 8. When taking the dispositional variables and industry tenure into account as in Model 2, the

dispositional variables, except internal locus of control were significantly related to receptivity to change, and only SOAM was negatively related. Industry tenure was not related to receptivity to change. When all interaction variables with industry tenure were taken into analysis, risk-taking propensity remained a positively determinant. External locus of control interacting with industry tenure was positively related to receptivity to change and SOAM interacting with industry tenure was negatively related. Again, it confirms that the higher the risk-taking propensity of managers, the more receptivity to change they are. Meanwhile, locus of control and achievement motivation are significantly moderated by industry tenure.

Referring to significant change of variance in Table 9, the control variables (industry and education) significantly accounted for the variance of 10%. When dispositional variables and age were added, the added variance significantly being accounted for was 24%. When all interaction terms are added, the added variance significantly being accounted for was 6%, adding up to a total of 40% for this regression analysis.

Hypotheses testing results

The following moderation plots (Figure 2 - 6) present graphically the form of interaction between dispositional and demographic variables. Their interaction effects were found to be significant in the regression analyses.

Figure 2
Graphical presentation of interaction between risk-taking and age

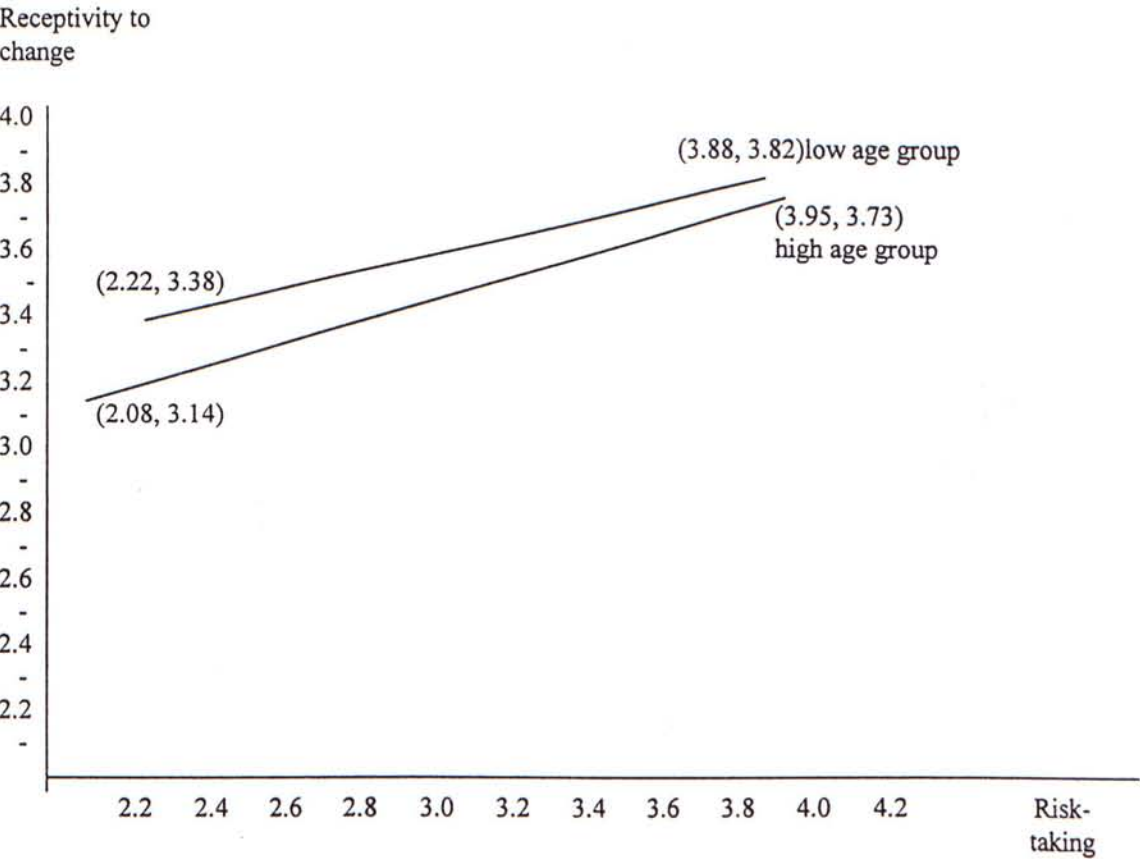


Figure 3
Graphical presentation of interaction between tolerance of ambiguity and age

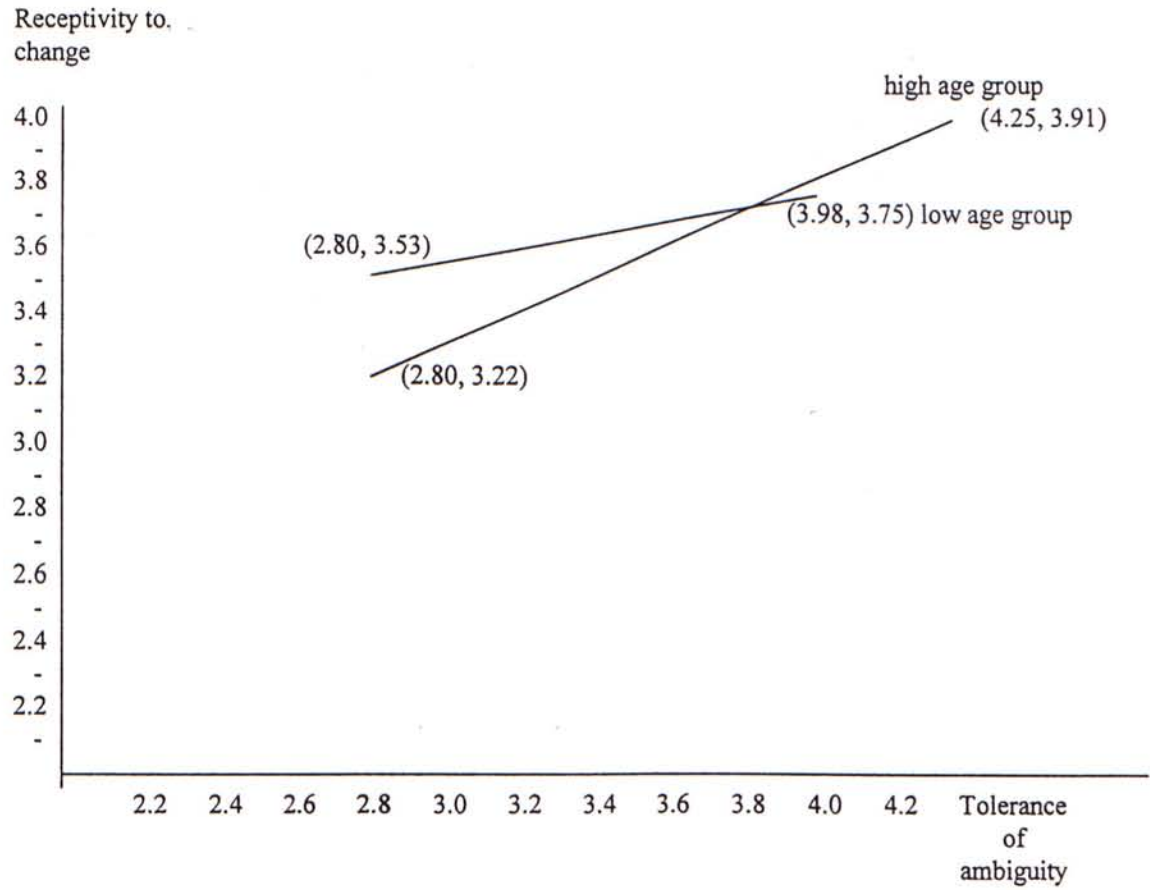


Figure 4
Graphical presentation of interaction between external locus of control and age

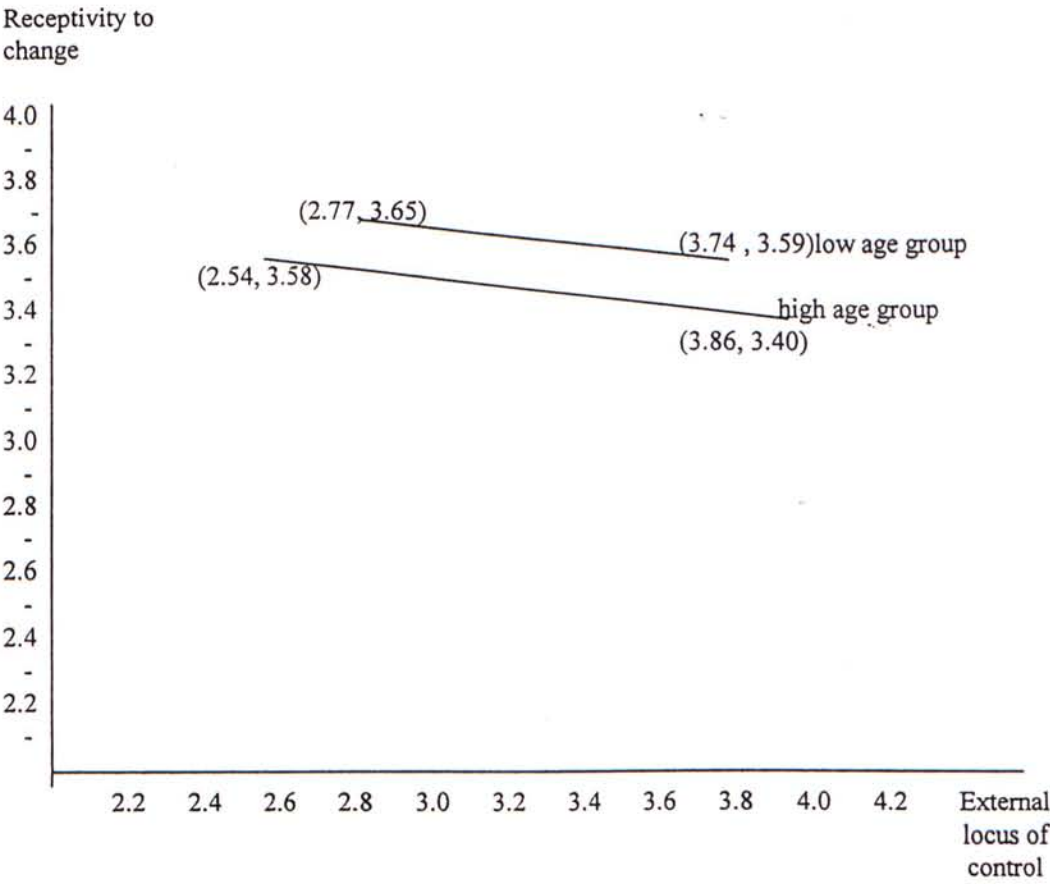


Figure 5
Graphical presentation of interaction between external locus of control and industry tenure

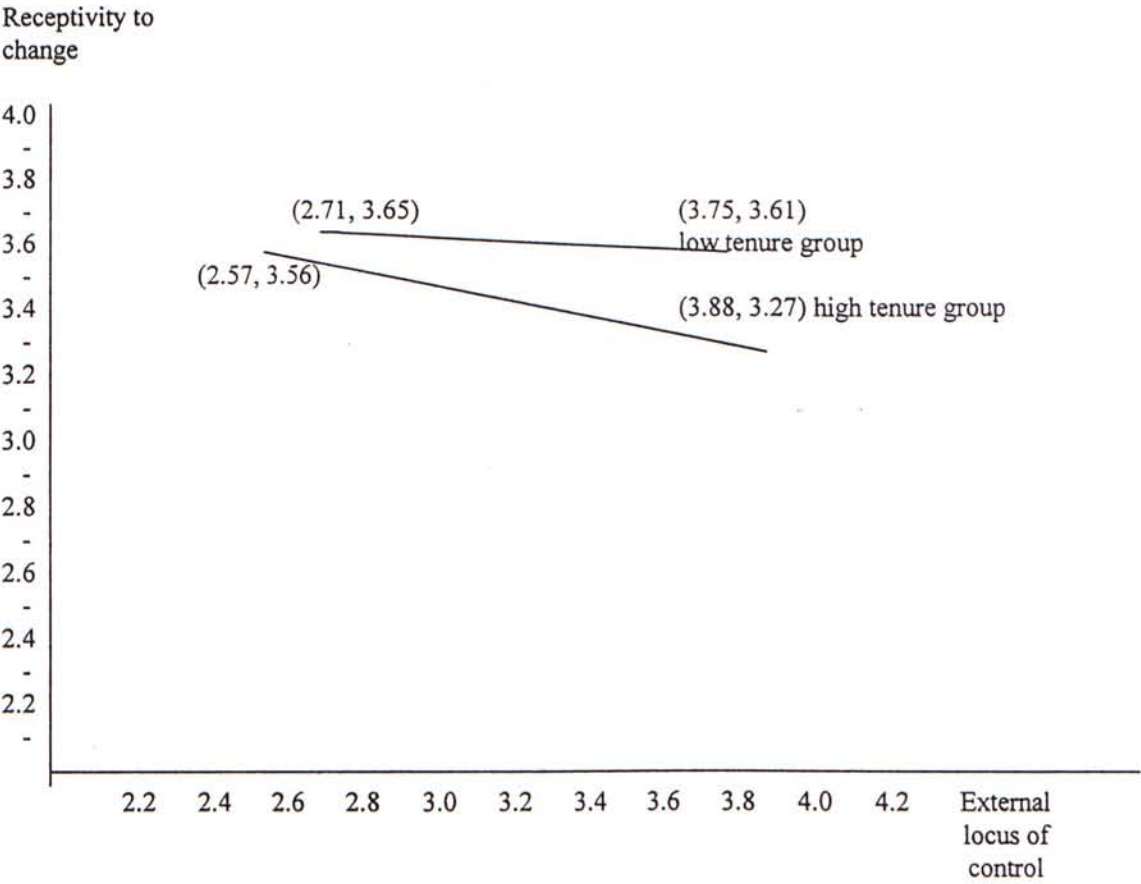
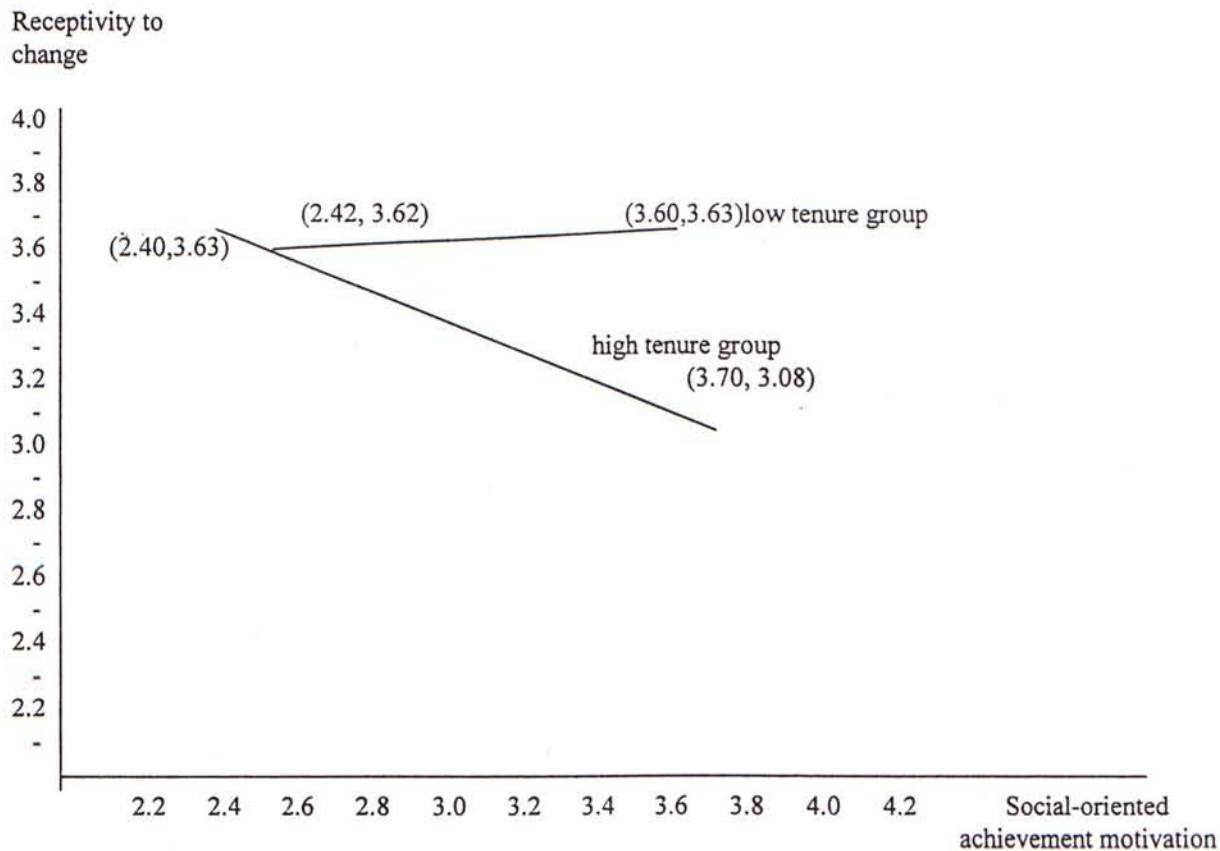


Figure 6
Graphical presentation of interaction between social-oriented achievement motivation and industry tenure



Hypothesis 1 proposed that managers having higher risk-taking propensity are more receptive to change. The B coefficient of this dispositional variable was found to be significant in Table 7 ($B=.84, p<.05$), Table 8($B=.79, p<.01$) and Table 9 ($B=.23, p<.01$). This hypothesis is supported.

H1a proposed that managers having higher risk-taking propensity are more receptive to change and this positive relationship is weaker with increasing age or industry tenure of managers. In model 3 of Table 8, when risk-taking propensity was interacting with age, the B coefficient was $-.02 (p<.05)$. The interacting effect

was not significant when interacting with industry tenure. Referring to graphical presentation of the interacting effect in Figure 2, it was found that the receptivity to change across the high age group was lower than that of the low age group. Age was a significant moderator of the positive relationship between risk-taking propensity and receptivity to change. H1a was supported.

Hypothesis 2 proposed that managers having higher tolerance of ambiguity are more receptive to change. The B coefficient was not significant for this dispositional variable (refer to model 3 of Table 7, 8 and 9). This hypothesis was not supported.

Hypothesis 2a proposed that managers having higher tolerance of ambiguity are more receptive to change and this positive relationship is weaker with increasing age or industry tenure of managers. In model 3 of Table 7, the interaction of tolerance of ambiguity with age was found to be significantly and positive related ($B=.03, p<.05$) to receptivity to change. Referring to graphical presentation of their interaction form in Figure 3, in lower level of tolerance of ambiguity (below scale 3.8), the receptivity to change of high age group was lower than that of low age group while the opposite was true when level of tolerance of ambiguity exceeded 3.8 of its scale. H2a was not supported for this inconsistent result.

Hypothesis 3 proposed that managers having higher internal locus control are more receptive to change. The main effects of both internal and external loci of control were not significantly related to receptivity to change as shown in Table 7, 8 and 9. This hypothesis was not supported.

Hypothesis 3a proposed that managers having higher internal locus control are more receptive to change and this positive relationship will be weaker with increasing age or industry tenure of managers. This significant effect was shown on the part for the interaction term of external locus of control with age ($B=.01, p<.05$) in Table 8 and industry tenure ($B = .03, p<.01$) in Table 9. It was not significant for the dimension of internal locus of control. Reading the graphical presentation of their interacting form in Figure 4 and 5, the downward slope of the lines showed the negative relationship between external locus of control and receptivity to change. In other words, it indicated the positive relationship between internal locus of control and receptivity to change. When locus of control interacted with age or industry tenure, both the high age and high industry tenure groups showed lower receptivity to change. Age and industry tenure significantly moderated the positive relationship between locus of control and receptivity to change. H3a was supported.

Hypothesis 4 proposed that managers with higher need of achievement, whether social or individual oriented, are more receptive to change. The main effects of both SOAM and IOAM did not significantly account for the variance in receptivity to change as shown in Table 7, 8, and 9. This hypothesis was not supported.

H4a proposed that managers with higher need of achievement are more receptive to change and this positive relationship will be weaker with increasing age or industry tenure of managers. Social-oriented achievement motivation interacting with industry tenure was found to be significant as shown in Table 7 ($B= -.04, p<.01$)

and Table 9 ($B = -.04, p<.01$). Referring to the graphical presentation of their interaction form in Figure 6, in the low tenure group, the slightly upward slope of the line showed a positive relationship between SOAM and receptivity to change. In the high tenure group, the slope of the line became downward and it indicated that tenure was a significant moderator of the positive relationship between need of achievement and receptivity to change. H4a was supported.

Table 10
Results of hypotheses

Hypotheses		Support
H1	Managers having higher risk-taking propensity are more receptive to change.	Yes
H1a	Managers having higher risk-taking propensity are more receptive to change and this relationship is weaker with increasing age or industry tenure.	Yes
H2	Managers with higher tolerance of ambiguity are more receptive to change.	No
H2a	Managers with higher tolerance of ambiguity are more receptive to change and this relationship is weaker with increasing age or industry tenure.	No
H3	Managers of higher internal locus of control are more receptive to change .	No
H3a	Managers of higher internal locus of control are more receptive to change and this relationship is weaker with increasing age or industry tenure.	Yes
H4	Managers of higher need of achievement are more receptive to change.	No
H4a	Managers of higher need of achievement are more receptive to change and this relationship is weaker with increasing age or industry tenure.	Yes

Actual organizational change and change experience

The weighted scale of favorable level to each organizational change was calculated to measure the magnitude of favorable level of managers on each change type. It was worked out with the multiplication of favorable level with degree of change of each change and a straight average of the responses to the weighted scale of each favorable level and degree of change of each change category (i.e. organizing arrangement, social factors, physical setting, technology, business growth and downsizing) was used as a measure of weighted scale for each change category. It is worthwhile to note that when regressing the weighted scale of degree of different organizational change categories, neither one of them was found to be significant (Refer to Table 11). It reflects that when managers find some organizational changes favorable, it does not imply that they are receptivity to changes. Some other factors have to be considered. Hypothesis 5 proposed that the more favorable experience managers find for their organizational change, the more they are receptive to change. This hypothesis was not supported and there is an implication for further research.

Table 11
Regression results of weighted scale of favorable level and different change
categories on receptivity to change

Variable groups	Statistics result Beta
organizing arrangement x favorable level (fl)	-.05
social factors x fl	.01
technology x fl	.06
physical setting x fl	-.10
business growth strategies x fl	.03
downsizing x fl	.00
R2	.01
R2 Change	.01
F Change	.34

*p<0.05, **p<0.01

Chapter V

DISCUSSIONS

Risk-taking :

McClelland (1961) believed that an innovative manager who has decision-making responsibility is an entrepreneur. Ray (1994) stated that risk is most likely to be seen in specific kinds of entrepreneurial decisions such as the decision to new venture development while Kets de Vries (1977) ascertained that innovation and risk taking can be considered important entrepreneurial dimensions. It is no doubt for the significant relationship between a manager's risk-taking propensity and his openness to changes. It is further confirmed in this study that the higher the risk-taking propensity of managers, the more receptive to change they are. Meanwhile, in increasing age of managers, the relationship between risk-taking propensity and receptivity to change weakens. MacCrimmon and Wehrung (1990) found that the most consistent risk averters were the most mature managers (i.e. older, longer seniority) and greater maturity was related to less willingness to take business risk. It is confirmed in this study that when managers grow older, their risk-taking propensity is less in its effect and they are less open to change as a result. The relationship between risk-taking and age suggests the attention has to be paid to physiological or personal changes over time in course of life cycle.

The need for job security will be an explanation for the result. As mentioned in Ray (1994), the job security issue probably functions as a negative force

discouraging non-entrepreneur from launching a business whereas the self-respect issue probably functions to drive entrepreneurs forward in search for success. Older managers may perceive job security as more important because they probably have established social network, status, success and self-respect. They will consider risk-taking less necessary to build their circle of influence and status. Changes will cause uncertainty in their job status and they will feel insecure. It is not surprising that older managers will prefer less changes to them.

Kimberly and Quinn (1984) reviewed that a well known premise in the literature on organizational change is that members will not be receptive to change unless they are dissatisfied with the current situation. Older managers may naturally have the feeling of things going well and are satisfied after years of development and they become less prone to risk-taking and change. They, not necessarily due to the fear of failure, think that they need not to be as high risk-taker as when they were young. Their familiarity with the social or political industrial environment will be higher when they are older. They will be naturally less urge for change opportunities. Managers will take riskier actions when their own positions or jobs are threatened than when they are safe. Younger managers yet need to be more risk-taking to go for success and build up their respect by others as risk-taking is valued, treated as essential to innovation and success. The study of March and Sharpira (1987) also supported this view.

It is true that in this study that risk-taking, though a stable disposition, has changed in magnitude for older managers. The reasons behind are reflected by demographic changes and the experience and situations associated with it. The

findings of this study further confirm such explanations. We need to broaden our view when studying risk-taking behavior. Life cycle development models or variables should be considered at the same time with career development cycle. The significant effect of the interacting effect with age implies that risk choice should be viewed as part of a complex, multivariate process. Attention needs to be given to the study of a wide range of variables involved in risk-taking. The significant effect of risk-taking helps explain the psychological orientation of managers towards organizational changes, which affect their decision-making and organization behavior as a result.

It is found that in this study, the interacting effect of risk-taking propensity with industry tenure does not significantly account for the variation of the receptivity to change. The effect of Chinese culture and industry norms may offer some explanations. Chinese values are group-based and Chinese rather conform to norms of social environment. It may be due to the fact that the business and social environment in many industries, rather unstable now in Hong Kong, account for greater effect than tenure effect in the same industry. In order to align to such changing environment, organizations need changes. Managers are afraid to leave behind this competition and accept that change is necessary. It is also true that managers are expected to take risk in making decisions no matter how much experience they have obtained. Shapira (1986) interviewed managers and they felt that a manager who failed to take risks should not be in the business of managing while MacCrimmon and Wehrung (1986) found that managers were inclined to show greater propensity toward risk-taking when questions were framed as business decisions than when they were framed as personal decisions. Such industry norms

may be affecting the risk-taking propensity of managers rather than their seniority in the industry. It may be also true that the effect of life development cycle in terms of age is so important that rendering the effect of industry tenure insignificant. It further confirms our right approach in studying the effect of age and industry tenure separately as well.

Tolerance of ambiguity :

When comparing the high age and low age groups of their interacting effect with tolerance of ambiguity, age is found moderating the positive relationship between receptivity to change and tolerance of ambiguity at lower level of tolerance of ambiguity. At a higher level of tolerance of ambiguity, age becomes a positive moderator and high age group becomes more receptive to change. It would be that managers have accumulated many years of experience and they are in a better position to understand situations, no matter how uncertain they are, around them. They will be more tolerable to unstable environment and not so vulnerable to changing situations. They become less fearful of changes and thus more willing to accept changes.

The inconsistent findings limit the reliability of this variable. The low power of the instrument to measure tolerance of ambiguity, reflected by its low reliability of the scale of .4251 (Refer to Table 4), may be another reason while the predicted relationship cannot be established. This is an area to be further explored.

Locus of control :

It is noted that external locus of control interacting with age and industry tenure has significant effect on receptivity to change. In higher age and tenure managerial groups, they are less receptive to change.

Older managers may have less ability to induce change when they are fatigued more easily. In that situation, they become less able to control their ways of life and the effect of internal locus of control becomes less. They probably value more of the current state of affairs and would incur a loss if there were changes. To older managers, security, both financial and career, may become very important.

Senior managers have struggled for years to achieve their high positions. They typically are deeply established in their communities and family commitments (Vancil, 1987). They have more constraints, both psychologically and physically for changes around them. Even the industry norms that they have helped develop for so many years may become their constraints. Again, in the study of Hambrick et al. (1993), it was found that executives in the low-discretion industries exhibited no connection between current performance and change orientation. In the high-discretion industries, there was a strong link between performance and correctness of the status quo. Discretion, according to Hambrick et al. (1993), refers to fates of organization whether it lies outside the control of its managers or completely within

the control of those managers. The turbulent business environment in Hong Kong has led to a low discretion environment and managers apparently see performance as largely tied to matters outside their control. They will then be less receptive to change and would like to maintain what they have attained after so many years of development in the industry. The negative relationship between external locus of control and receptivity to change supports these explanations. The older and the more senior managers become, the effect of external locus of control becomes more obvious.

Achievement - motivation :

It is found that the social-oriented achievement moderated by industry tenure significantly accounts for the variation in the receptivity to change. In other words, industry tenure weakens the positive relationship between need for achievement and receptivity to change.

According to Yue and Yang (1987), the achievement goal for social-oriented people is group-related and family-based. They are other-oriented and not self-oriented. Those for high individual-oriented individuals are more individual-centred. Therefore, the variable of individual - oriented achievement motivation may not be suitable to study Hong Kong managers. Traditions of Chinese emphasize social stability and harmonious interpersonal relationship. They found that strong evidence suggests that industry norms exist and that executives tend to adhere psychologically to them. Those individuals who have participated in this 'social construction of reality' for the longest time are most convinced of its correctness and

would be less open to changes (Burrell & Morgan, 1979). It would also be true that more senior executives in the industry have taken part in the construction of this reality and their achievements in the industry have been established and recognized. They are satisfied with what they have achieved. They are less motivated to gain more achievement. The findings in this study clearly support such explanations. Also, with growing industry tenure, the effect of network and social influence becomes greater to managers. They will be less willing to initiate changes by themselves. While in Western society, the effect of individual-oriented achievement motivation may be more dominant. The findings of our study reflect some difference in the orientation of achievement-motivation between Chinese and Western society.

Limitations

There are certain limitations of this study. As discussed above, the reliability of tolerance of ambiguity was lower than would have desired and may have limited power in detecting significant relationship with receptivity to change. We need to question the use of this tolerance of ambiguity instrument in providing a global measure of tolerance of ambiguity. Chinese managers in Hong Kong may require more cultural-based instrument. Managers may not have generalized tolerance of ambiguity as suggested by Ray (1994) that entrepreneurs do not have generalized risk-taking propensity. Thus an instrument that focus on ambiguity in everyday life situation, that used in this study, may not be effective when applied to ambiguity situation actually encountered by managers in organizational environment.

Since data were reported by respondents, self-report bias may have influenced the results. The low reliability may also be attributed to the limitations of the measurement scale.

This is a cross-sectional research which studies the dispositional effect at one time. A longitudinal one may better test the effect of dispositions over time and situations which enhances their predictive validity.

This study uses global measures for each of the four dispositions, but the findings indicate the need of a more complicated model, which includes more dimensions for each dispositional variable. The effect of external locus of control and social-oriented achievement motivation is more profound. It implies that the other two dispositions, risk-taking and tolerance of ambiguity, may be best be explained by more than one dimensions. This is an area to be explored. Davis-Blake & Pfeffer (1989) suggested that measures of dispositions should be conceptually and empirically distinct from measures of the effects of dispositions. Judge (1992) also has urged dispositional researchers to redirect their efforts toward understanding the psychology of the process involved. They are actually proposing more dimensions for the study of each dispositional variable. Like that in Sitkin & Pablo's (1992) study, they proposed three risk dimensions, namely, outcome uncertainly, outcome expectations and outcome potential.

The lack of consideration of contextual variables in the conceptual framework may also reduce the accuracy of the findings and supported explanations as contextual variables may be affecting the change orientation of managers.

The use of industry tenure only may limit the validity of the tenure effect when types of tenure also exert important effect on psychological orientation of managers. Functional tenure may be contaminating the effect of industry tenure in this regard, resulting in inconsistent findings between dimensions of internal locus of control and external locus of control as well as between SOAM and IOAM.

Implications and future research

Owing to the many possibilities of the cultural specificity of dispositions, research can be extended to the consideration of cultural specificity of each nation. There is evidence to support the contention that risk-taking propensity does vary across national cultures (Cummings, Harnett, and Stevens 1971; Hopkins, Peterson, & Seo, 1977; Ray, 1994). Attitudes toward risk are usually pictured as stable properties of individuals, perhaps related to aspects of personality development and culture (Douglas & Wildavsky, 1982; March & Shapira, 1987). Cox (1994) stated that there is some evidence that members of different culture groups differ in locus of control orientation.

Similarly, the effect of organizational culture can be explored because some organizations are found to have strong cultures. It may further add to the dimensions of dispositions. Organizational tendencies to prefer certainty versus uncertainty and risk avoidance versus risk seeking may be defined as an organization's cultural risk values (Douglas & Wildavsky, 1982). Some researchers found that two of the most

powerful sources of social influence are the organization's culture and its leaders (e.g. Martin, Sitkin & Boehm, 1985; Schein, 1992; Sitkin & Pablo, 1992).

The significant effect of industry tenure in the psychological orientation is further confirmed by this empirical study. It is true that not only organizational factors and individual factors, but social factors, should be taken in consideration for studying the effect of dispositions. Risk-taking also fits into social definitions of managerial roles. Managers are expected to make things happen and to take more risks. Managerial ideology pictures managers as making changes thus leading to a tendency for managers to be biased in the direction of making organizational changes, and for others to be biased in expecting them to do so (March, 1981). Therefore, when considering this social factor on change orientation, it confirms the fallacies of expectations on managers in initiating organizational changes. Some other explanations, as explored in this research, should be more powerful in explaining organizational change behavior.

Hitt and Tyler (1991) argued that the interactions between situation and demographic variables should be examined to increase the understanding of the effects of demographic characteristics of top managers on decision process. Kahneman and Tversky (1979) and Laughum, Payne and Crum (1980) suggested that poor performance leads executives to take higher risks. Although the main effect of individual dispositions on attitudes and behavior is becoming more firmly established and further confirmed in this study, behavior geneticists note the important role of environment as well as the interaction of heredity and environment.

Similarly, the relationship with contextual factors is an area not to be neglected. Mintzberg (1979) found that organization structure affected innovation. Both simple structure and adhocracy were found to facilitate innovation. Miller and Droge (1986) found that CEO's need for achievement were found to have strong relationship to organizational structural constructs and supported the notion that personality influences structure. The relationship between contextual factors and personal factors is not unidirectional. Researches have indicated that there is a close relationship between organizational context and leadership. Hambrick et al. (1993) noted that a given manager may change his or her commitment to the status quo, depending on industry, organizational or personal factors. The same conception will apply to receptivity to change in this study. The kind of and how the relationship exists between organizations and persons requires further studies. However, it can be ascertained that there is some kind of interaction effect between organizational contextual factors and personal factors from the contradictory findings of organization size, age and structure in previous studies.

The juxtaposition of different theoretical perspectives, like the dispositional and demographic ones in this study, implies that future empirical research should look for a comprehensive analysis of the effect of dispositions. Future studies should integrate more theoretical dimensions when studying dispositional effect.

This research model can further be extended to test how the receptivity to change of managers affects the decision making behavior on organizational changes. It is also found that when managers find some changes favorable does not imply that

they are receptive to such kind of change. Therefore, researchers can go on to find out the kinds of perception of organizational changes that affect the receptivity to change of managers.

Conclusion

This research further sheds lights on the importance of the effect of dispositions on psychological orientation of managers, which will have significant effect on organizational changes. It enriches the literature on organizational behavior.

Previous researches mainly focus on the use of observable executive characteristics in studies of upper echelons theory. Davis-Blake & Pfeffer (1989) stated that there was a relatively long period when research on the main effects of individual dispositions was virtually neglected. It is a good attempt to study this neglected area and have some stimulating findings for further research.

The establishment of the interacting effect of demographic factors on dispositional factors bridges the two theories and provides more empirical explanations to inconsistent findings in the past. There are much room to study the two theories together in future.

In a practical sense, the findings of this study offer more insights into management practice in managerial self-development, human resources planning and organizational change and development. If individuals understand more of their

dispositional effect, they may choose career that suit more of their needs. They will know whether they are suitable to be an entrepreneur. Performance and job satisfaction will then be enhanced if their career meet their dispositional traits.

For human resource practitioners, they would widen their view on making decisions on recruitment and selection, promotion and succession planning. When demographic characteristics of executives reveal some differences in managerial orientation and behavior, dispositional traits are some underlying causes not to be ignored. When considering some managers to take part in radical organizational change initiatives, young age, short industry tenured and high risk-taker may be the best choice. Meanwhile, they should consider earlier on-the-job personality development of executives because the stability of dispositions will be affected by demographic changes.

For training and development specialists, they can design courses to meet the development needs of individuals with different dispositional traits. Since global traits can be developed through social learning, they can create learning environment to facilitate the development of more appropriate dispositional traits for the organizations.

For corporations, the significant effects of dispositional traits and demographic characteristics of executives found in this study provide directions for overcoming the inertia of change. It is of particular importance when organizational change and development have to take place successfully.

References

- Barrick, M., & Mount, M. 1991. The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44: 1-26.
- Bartunek, J. M., & Moch, M. K. 1987. First-order, second-order, and third-order change and organization development interventions: A cognitive approach. *The Journal of Applied Behavioral Science*, 23(4): 483-500.
- Bem, D. J., & Allen, A. 1974. On predicting some of the people some of the time: The search for cross-situational consistencies in behavior. *Psychological Review*, 81: 506-520.
- Bem, D., J., & Funder, D. C. 1978. Predicting more of the people more of the time : Assessing the personality of situations. *Psychological Review*, 85: 485- 501.
- Boeker, W. 1989. Strategic change: The effects of founding and history. *Academy of Management Journal*, 32: 489-515.
- Brown, M. T., & Tinsley, H. E. A. 1983. Discriminant analysis. *Journal of Leisure Research*, 15: 290-310.
- Brockhaus, R. H. 1980. Risk taking propensity of entrepreneurs. *Academy of Management Journal*, 23(3): 509-520.
- Brockhaus, R. S. 1975. I-E locus of control scores as predictors of entrepreneurial intentions. *Proceedings of the Academy of Management Annual Meeting*, 433-435.
- Budner, S. 1962. Intolerance of Ambiguity as a personality variable. *Journal of Personality*, 30: 29-50.
- Burrell, G., & Morgan, G. 1979. *Sociological Paradigms and Organizational Analysis*. Heinemann, London.
- Carlsson, G., & Karlsson, K. 1970. Age, cohorts and the generation of generation. *American Sociological Review*, 35: 710-718.
- Cassidy, T., & Lynn, R. 1989. A multifactorial approach to achievement motivation: the development of a comprehensive measure. *Journal of Occupational Psychological*, 62: 301-312.
- Child, J. 1972. Organization structure, environment, and performance: the role of strategic choice. *Sociology*, 6:1-22.
- Chusmir, L. H. 1989. Behavior: a measure of motivation needs. *Psychology : A Journal of Human Behavior*, 26 : 1-10.

- Cohen, J. 1988. *Statistical power analysis for the behavioral sciences*. 2nd edition, New York: Lawrence Erlbaum Associates Publisher.
- Cooper, A. C., & Schendel, D. 1976. Strategic responses to technological threats. *Business Horizons*, 19(1): 61-69.
- Cox, Taylor, Jr. 1994. *Cultural Diversity in Organization: Theory Research & Practice*. San Francisco, Calif: Berrett-Koehler.
- Cummings, L. L., Harnett, D. L. & Stevens O. J. 1971. Risk, fate, conciliation and trust: An international study of attitudinal differences among executives. *Academy of Management Journal*, 14:285-304.
- Davis-Blake, A., & Pfeffer, J. 1989. Just a mirage: The search for dispositional effects in organizational research. *Academy of Management Review*, 14: 385-400.
- Douglas, M., & Wildavsky A. 1982. *Risk and Culture*. Berkeley, CA: University of California Press.
- Duncan, R. B. 1972. Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly*, 17: 313-327.
- Durand, D. E., & Shea, D. 1974. Entrepreneurial activity as a function of achievement motivation and reinforcement control. *The Journal of Psychology*, 88:57-63.
- Dutton J. E., & Duncan R. B. 1987. The creation of momentum for change through the process of strategic issue diagnosis. *Strategic Management Journal*, 8 :279-295.
- Dutton, J. E., & Jackson, S. J. 1987. Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, 12:76-90.
- Epstein, S. 1979. The stability of behavior: On predicting most of the people much of the time. *Journal of Personality and Social Psychology*, 37: 1097-1126.
- Fineman, S. 1975. The work preference questionnaire : a measure of managerial need for achievement. *Journal of Occupational Psychology*, 48: 11-32.
- Fink, A. 1995. *The survey kit : How to sample in surveys*. California : Sage Publications, Inc.
- Fombrun, C. J., & Ginsberg, A. 1990. Shifting gears: Enabling change in corporate aggressiveness. *Strategic Management Journal*, 11: 297-308.
- Frohman, A. L. 1997. Igniting organizational change from below: the power of personal initiative. *Organizational Dynamics*, Winter:39-53.

- Gersick, C. J. G. 1994. Pacing strategic change: The case of a new venture. *Academy of Management Journal*, 37:9-45.
- Ginsberg, A., & Abrahamson, E. 1991. Champions of change and strategic shifts: The role of internal and external change advocates. *Journal of Management Studies*, 28: 173-190.
- Gomez-Mejia L. R., & Balkin D. B. 1989. Effectiveness of individual and aggregate compensation strategies. *Industrial Relations*, 28 : 431-445.
- Grimm, C. M., & Smith, K. G. 1991. Research notes and communications management and organizational change: A note on the railway industry. *Strategic Management Journal*, 12:557-562.
- Gupta, A. K., & Govindarajan, V. 1984. Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27 (1): 25-41.
- Hage, J., & Dewar, R. 1973. Elite values versus organizational structures in predicting innovation. *Administrative Science Quarterly*, 18:279-290.
- Hambrick, D. C., & Finkelstein, S. 1987. Managerial discretion : A bridge between polar views of organizational outcomes. *Research in Organizational Behavior*, 9 : 369-406.
- Hambrick, D. C., & Mason., P. 1984. Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review*, 9:193-206.
- Hambrick, D. C., Geletkanycz, M. A., & Fredrickson, J. W. 1993. Top executive commitment to the status quo: some tests of its determinants. *Strategic Management Journal*, 14: 401-418.
- Hitt, M. A., & Tyler B. B. 1991. Strategic decision models: Integrating different perspectives. *Strategic Management Journal*, 12 : 327-351.
- Hough, L., Eaton, N., Dunnette, M., Kamp, J., & McCloy, R. 1990. Criterion-related validities of personality constructs and the effect of response distortion on those validities. *Journal of Applied Psychology*, 75:581-595.
- Hopkins, M. E., Lo, L., Peterson, R. E., & Seo, K. K. 1977. Japanese and American Managers. *Journal of Psychology*, 96:71-72.
- Hodgkinson, G. P. 1992. Research notes and communications development and validation of the strategic locus of control scale. *Strategic Management Journal*, 13:311-317.
- Hoffman R. C., & Hegarty W. H. 1993. Top management influence on innovations: Effects of executive characteristics and social culture. *Journal of Management*, 19(3):549-574.

- Holland, J. L. 1973. *Making vocational choices*. Englewood Cliffs, NJ: Prentice-Hall.
- House, R. J., Shane, S. A., & Herold D. M. 1996. Rumors of the death of dispositional research are vastly exaggerated. *Academy of Management Review*, 21(1): 203-224.
- House, R., Howard, A., & Walker, G. 1991. The prediction of managerial success: A competitive test of the person-situation debate. *Academy of Management : Best Paper Proceedings*, 215-224.
- Howell, J. M., & Higgins, C. A. 1990. Champions of technological innovation. *Administrative Science Quarterly*, 35(2):317-341.
- Ireland, R. D., Hitt, M A., Bettis R. A. & Porras D. A. 1987 Strategy formulation processes: Differences in perceptions of strength and weaknesses indicators and environmental uncertainty by managerial level. *Strategic Management Journal*, 8:469-485.
- Jackson, S. E., & Dutton, J. E. 1988. Discerning threats and opportunities. *Administrative Science Quarterly*, 33: 370-387.
- Judge, T. A. 1992. *The dispositional perspective in human resource management*. In G. Ferris & K. M. Rowland (Eds), *Research in personnel and human resource management*, 10: 31-72. Greenwich, CT:JAI press.
- Kahneman, D., & Tversky A. 1979. Prospect theory : An analysis of decisions under risk. *Econometrica*, 47: 262-291.
- Kanter, R. M. 1977. *Men and women of the corporation*. New York : Basic Books.
- Kets de Vries, M. F. R. 1977. The entrepreneurial personality: A person at the crossroads. *Journal of Management Studies*, 14 :34-57.
- Kimberly, J., & Evanisko, M. 1981. Organizational innovation: The influence of the individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal*, 24:689-713.
- Kimberly, J. R., & Quinn, R. E. 1984. *Managing organizational transitions*. Richard D. Irwin, Homewood, IL.
- Kogan, N., & Wallach, M. A. 1964. *Risk taking : a study in cognition and personality*. New York : Holt, Rinehart, and Winston.

- Kohn, M., & Schooler, C. 1982. Job conditions and personality: A longitudinal assessment of their reciprocal effects. *American Journal of Sociology*, 87: 1275-1286.
- Kohn, M., & Schooler, C. 1983. *Work and personality: An inquiry into the impact of social stratification*. Newark, NJ: Ablex.
- Krackhardt, D., & Porter, L. W. 1986. The snowball effect : Turnover embedded in communication networks. *Journal of Applied Psychology*, 71:50-55.
- Landy, F. J. 1978. An opponent process theory of job satisfaction. *Journal of Applied Psychology*, 63:533-547.
- Lau, C. M. 1992. Organization development practices in Hong Kong: current state and future challenges, *Asia Pacific Journal of Management*, 12(1): 101-114.
- Laughunn, D. J., Payne J. W., & Crum R. 1980. Managerial risk preferences for below target returns. *Management Science*, 26 : 1238-1249.
- Lawrence, B. S. 1988. New wrinkles in the theory of age: Demography, norms, and performance ratings. *Academy of Management Journal*, 31:309-337.
- Levenson, H. 1972. *Distinctions within the concept of internal-external control: Development of a new scale*. Paper presented at the meeting of the American Psychological Association, Hawaii.
- Lewin, A. Y ., & Stephens, C. U. 1994. CEO attitudes as determinants of organizational design: An integrated model. *Organization studies* : 183-212.
- Lorsch, J. W., & Morse, J. J. 1974. *Organizations and their members : A contingency approach*. New York: Harper & Row.
- Lynn, R. 1969. An achievement motivation questionnaire. *British Journal of Psychology*, 60(4): 529-534.
- MacDonald, A. P. 1970. Revised scale for ambiguity tolerance: reliability and validity. *Psychological reports*, 26: 791-798.
- MacCrimmon, K. R., & Wehrung, D. A. 1986. *Taking risks : The management of uncertainty*. New York : Free Press.
- MacCrimmon, K. R., & Wehrung, D. A. 1990. Characteristics of risk taking executives. *Management Science*, 36(4): 422-435.
- March, J. G., & Shapira Z. 1987. Managerial Perspectives on risk and risk taking. *Management Science*, 33(11):1404-1418.
- March, J. G. 1981. Footnotes to organizational change. *Administrative Science Quarterly*, 26: 563-577.

- Martin, J., Sitkin, S. B., & Boehm, M. 1985. Founders and the elusiveness of a cultural legacy. In P. J. Frost, L. F. Moore, M. R. Louis, C. C. Lundberg, & J. Martin (Eds.), *Organizational Culture*: 99-124. Beverly Hills: Sage.
- McCain, B. R., O'Reilly, C. A., III, & Pfeffer, J. 1983. The effects of departmental demography on turnover: The case of a university. *Academy of Management Journal*, 26: 626-641.
- McClelland, D. C. 1961. *The achieving society*. Princeton, N. J. : Van Nostrand.
- McClelland, D. C. 1965. N-achievement and entrepreneurship. *Journal of Personality and Social Psychology*, 1(4): 389-392.
- McClelland, D. C., & Winter, D. C. (1969). *Motivating Economic Achievement*. New York: Free Press.
- McClelland, D. 1985. *Human motivation*. Glenview, IL: Scott, Foresman.
- Meyer, A. D, Brooks, G.R., & Goes J. B. 1990. Environmental jolts and industry revolutions: Organizational responses to discontinuous change. *Strategic Management Journal*, 11:93-110.
- Miller, D., Kets de Vries, M. F. R., & Toulouse, J. M. 1982. Top executive locus of control and its relationship to strategy-making, structure, and environment. *Academy of Management Journal*, 25(2): 237-253.
- Miller, D., & Droge, C. 1986. Psychological and traditional determinants of structure. *Administrative Science Quarterly*, 31:539-560.
- Miller, D., & Toulouse, J.M. 1986. Chief executive personality and corporate strategy and structure in small firms. *Management science*, 32 (11): 1389-1409.
- Mintzberg, H. 1979. *Structuring of organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Mischel, W. 1968. *Personality and Assessment*. New York: Wiley.
- Mowday, R. T., & Sutton, T. I. 1993. Organizational behavior: Linking individuals and groups to organizational contexts. *Annual Review of Psychology*, 44:195-229.
- Monson, T. C., Hesley, J. W., & Chernick, L. 1982. Specifying when personality traits can and cannot predict behavior: An alternative to abandoning the attempt to predict single act criteria. *Journal of Personality and Social Psychology*, 43: 385-399.

- Montanari, J. R. 1978. Managerial discretion: An expanded model of organization choice. *Academy of Management Review*, 3: 231-241.
- Murray, H. A. 1938. *Explorations in Personality*. New York: Oxford University Press.
- Nadler, D. A., & Tushman, M. L. 1989. Beyond the charismatic leader: Leadership and organizational change. *California Management Review*, 32(2): 77-97.
- Nelson, D. L., & Sutton, C. 1990. Chronic work stress and coping: A longitudinal study and suggested new directions. *Academy of Management Journal*, 33: 165-186.
- Norton, R. W. 1975. Measurement of ambiguity tolerance. *Journal of Personality Assessment*, 39(6): 607-619.
- O'Reilly, C. A., Parlette, N., & Bloom, J. R. 1980. Perceptual measures of task characteristics: The biasing effect of differing frames of reference and job attitudes. *Academy of Management Journal*, 23: 118-131.
- Pareek U. 1992. *Annual developing human resources : Locus of control inventory*. Pfeiffer & Company : 135-148.
- Perry, C. 1987. After further sightings of the heffalump. *Journal of Managerial Psychology*, 5(2): 22-31.
- Pettigrew, A. 1987. Context and action in the transformation of the firm. *Journal of Management Studies*, 24: 649-670.
- Pettigrew, A., Ferlie, E., & McKee, L. 1992. *Shaping strategic change*. Newbury Park, CA: Sage.
- Pettigrew, A. M. 1990. Longitudinal field research on change : theory and practice. *Organization Science*, 1: 267-292.
- Phares, E. J. 1976. *Locus of control in personality*. Morristown, NJ: General Learning Press.
- Porras, J. I. 1987. *Stream analysis : A powerful new way to diagnose and manage change*. Reading, MA: Addison Wesley.
- Pulakos, E. d., & Schmitt, N. 1983. A longitudinal study of a valence model approach for the prediction of job satisfaction of new employees. *Journal of Applied Psychology*, 68:307-312.
- Rajagopalan, N., & Datta, D. K. 1996. CEO characteristics: does industry matter? *Academy of Management Journal*, 39(1): 197-215.

- Rajagopalan, N., & Spreitzer G. M. 1996. Toward a theory of strategic change; A multi-lens perspective and integrative framework. *Academy of Management Review*, 22(1):48-79.
- Ray, D. M. 1994. The role of risk-taking in Singapore. *Journal of Business Venturing*, 9 : 157 - 177.
- Rose, R.J., Koskenvuo, M., Kaprio, J., & Langinvainio, H. 1988. Shared genes, shared experiences, and similarity of personality: Data from 14,288 adult Finnish co-twins. *Journal of Personality and Social Psychology*, 54:161-171.
- Rotter, J. B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80 : 1-28.
- Schere, J. L. 1982. *Tolerance of ambiguity as a discriminating variable between entrepreneurs and managers*. Proceedings of the 42nd Annual Meeting of the Academy of Management, New York : 404-408.
- Schein, E. H. 1992. *Organizational culture and leadership*. 2nd edition, San Francisco: Jossey-Bass.
- Schneider B. 1983. Interactional psychology and organizational behavior. In B. M. Staw & L. L. Cummings (Eds.) *Research in organizational behavior*, 5:1-31. Greenwich, CT: JAI Press.
- Sekaran, U. 1983. Methodological and theoretical issues and advancement in cross-cultural research. *Journal of International Business Studies*, 14: 61-73.
- Shapiro, Z. 1986. *Risk in managerial decision-making*. Working paper, Hebrew University.
- Simons, R. 1994. How new top managers use control systems as levers of strategic renewal. *Strategic Management Journal*, 15:169-189.
- Singh, J. V., House, R.J., & Tucker, D. 1986. Organizational change and organizational mortality. *Administrative Science Quarterly*, 31:587-611.
- Sitkin S. B., & Pablo A. L. 1992. Reconceptualizing the determinants of risk behavior. *Academy of Management Review*, 17 (1): 9-38.
- Slovic, P. 1972. Information processing, situation specificity, and the generality of risk-taking behavior. *Journal of Personality and Social Psychology*, 22(1):128-134.
- Schmidt, R. M. 1967. *Description and results of the pretest of the abbreviated Rotter scale*. Human Resource Research Center, Ohio State University.
- Smith, J. M. 1973. A quick measure of achievement motivation. *British Journal of Social Clinical Psychology*, 12: 137-143.

- Spector, P. E. 1982. Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin*, 91(3): 482-497.
- Spector, P. E. 1988. Development of the work locus of control. *Journal of Occupational Psychology*, 61: 335-340.
- Spender, J. C. 1989. *Industry recipes : An enquiry into the nature and sources of managerial judgement*, Blackwell, Cambridge, MA.
- Staw, B. M., Nancy, E. B., & Clausen, J. A. 1986. The dispositional approach to job attitudes: A lifetime longitudinal test. *Administrative Science Quarterly*, 31: 56-77.
- Staw, B. M., & Ross, J. 1985. Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied Psychology*, 70 (3): 469-480.
- Steers, R. M., & Braunstein, D. N. 1976. A behaviorally-based measure of manifest needs in work settings. *Journal of Vocational Behavior*, 9: 251-266.
- Stevens, J. M., Beyer, J. M., & Trice, H. M. 1978. Assessing personal role, and organizational predictors of managerial commitment. *Academy of Management Journal*, 21: 380-396.
- Surti, K. 1982. *Some psychological correlates of role stress and coping styles in working women*. Working paper, University of Gujarat, India.
- Taylor, R. N. 1975. Age and experience as determinants of managerial information processing and decision making performance. *Academy of Management Journal*, 18: 74-81.
- Tellegen, A., Lykken, D. T., Bouchard, T., Jr., Wilcox, K. J., Seagal, N.L., & Rich, S. 1988. Personality similarity in twins reared apart and together. *Journal of Personality and Social Psychology*, 54: 1031-1039.
- Teoh, H. Y., & Foo, S. L. 1997. Moderating effects of tolerance for ambiguity and risk-taking propensity on the role conflict-perceived performance relationship: Evidence from Singaporean entrepreneurs. *Journal of Business Venturing*, 12: 67-81.
- Udy, S. 1959. *Organization of work : A comparative analysis of production among nonindustrial people*. Human Relations Area Files. New Haven, Yale University.
- Valecha, G. K., & Ostrom, T. M. 1974. An abbreviated measure of internal-external locus of control. *Journal of Personality Assessment*, 38 (4):369-376.
- Vancil, R. 1987. *Passing the baton: Managing the process of CEO succession*. Harvard Business School Press, Boston, MA.

- Veroff, J. 1969. Social comparison and the development of achievement motivation. In Smith (Ed.), *Achievement and related motives in children*. New York: Russel Sage.
- Veroff, J., & Field, S. c. 1970. *Marriage and work in America*. New York: Van Nostrand Reinhold.
- Vroom, V., & Pahl, B. 1971. Relationship between age and risk-taking among managers. *Journal of Applied Psychology*, 55:399-405.
- Wagner, W. G., Pfeffer, J., & O'Reilly, C. A. 1984. Organizational demography and turnover in top management groups. *Administrative Science Quarterly*, 29:74-92.
- Waller M. J., Huber G. P., & Glick W. H. 1995. Functional background as a determinant of executives' selective perception. *Academy of Management Journal*, 38(4):943-974.
- Walsh, J. P. 1988. Selectivity and selective perception: An investigation of managers' beliefs structures and information processing. *Academy of Management Journal*, 31: 873-896.
- Webb, J., & Dawson, P. 1991. Measure for measure: Strategic change in an electronics instruments corporation. *Journal of Management Studies*, 28: 191-206.
- Weiss, H. M., & Adler, S. 1984. Personality and organizational behavior. In B. Staw & Cummings (Eds), *Research in organization behavior*, 6: 1-50. Greenwich, CT: JAI Press.
- Wiersema, M. F. 1992. Strategic consequences of executive succession within diversified firms. *Journal of Management Studies*, 29:73-93.
- Wiersema, M. F., & Bantel, K. A. 1992. Top management team demography and corporate strategic change. *Academy of Management Journal*, 35: 91-121.
- Wilkins, A. L., & Ouchi, W. C. 1983. Efficient cultures: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, 128:468-481.
- Yang, K. S. & Cheng, P.S. 1987. Confucianized values, individual modernity and organizational behavior: An empirical test of the post-Confucian hypothesis. *Institute of Ethnology Academia Sinica*, 64, autumn : 1-49.
- Yetton, P. W., Johnston, K. D., & Craig, C. F. 1994. Computer-aided architects: A case study of information technology and strategic change. *Sloan Management Review*, 35(4):57-67.

- Yue, A. B. (1996). Ultimate life concerns, self, and Chinese achievement motivation. In H. Bond (Ed.), *The Handbook of Chinese Psychology*. New York: Oxford University Press.
- Yue, A. B., & Yang, K. S. (1987). Social-oriented and individual-oriented achievement motivation : A conceptual and empirical analysis. *Bulletin of the Institute of Ethnology Academia Sinica*, 64, autumn, 51-98.
- Zajac, E. J., & Kraatz, M. S. 1993. A diametric model of strategic change: Assessing the antecedents and consequences of restructuring in the higher education industry. *Strategic Management Journal*, 14:83-102.

Appendix A

Frequency table of age

n=215		
Age :	N	
24	1	0.5 %
25	1	0.5 %
26	11	5.1 %
27	9	4.2 %
28	14	6.5 %
29	14	6.5 %
30	18	8.4 %
31	15	7.0 %
32	16	7.4 %
33	11	5.1 %
34	16	7.4 %
35	7	3.3 %
36	12	5.6 %
37	9	4.2 %
38	15	7.0 %
39	12	5.6 %
40	9	4.2 %
41	5	2.3 %
42	2	0.9 %
43	3	1.4 %
44	3	1.4 %
45	3	1.4 %
46	2	0.9 %
47	1	0.5 %
48	1	0.5 %
49	1	0.5 %
50	2	0.9 %
52	1	0.5 %
53	1	0.5 %
Total	215	100%

Appendix B

Frequency table of industry tenure

n=214		
Industry tenure:	N	
.50	2	.9
1.00	10	4.7
1.50	2	.9
2.00	6	2.8
2.50	8	3.7
3.00	12	5.6
3.50	5	2.3
4.00	15	7.0
4.50	1	.5
5.00	13	6.0
5.50	1	.5
6.00	26	12.1
6.50	2	.9
7.00	10	4.7
7.50	1	.5
8.00	12	5.6
8.50	1	.5
9.00	11	5.1
9.50	1	.5
10.00	12	5.6
10.50	1	.5
11.00	5	2.3
12.00	10	4.7
13.00	5	2.3
13.50	1	.5
14.00	1	.5
15.00	5	2.3
16.00	6	2.8
17.00	4	1.9
18.00	5	2.3
18.50	1	.5
19.00	5	2.3
20.00	3	1.4
21.00	1	.5
22.00	1	.5
23.00	4	1.9
24.00	1	.5
25.00	1	.5
28.00	1	.5
33.00	1	.5
36.00	<u>1</u>	<u>.5</u>
Total	214	100%

Appendix C

STUDY OF HONG KONG ORGANIZATION DEVELOPMENT

Part I

The following 30 statements represent employees' attitudes toward their work in an organization. Read each statement carefully; then indicate the extent to which you agree with it by circling a number in the given scale. If the responses do not adequately indicate your own opinion, use the number closest to the way you feel. Use the following scale :

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
1. I determine what matters to me in the organization.	1	2	3	4	5
2. The course of my career depends on me.	1	2	3	4	5
3. My success or failure depends on the amount of effort I exert.	1	2	3	4	5
4. The people who are important control matters in this organization.	1	2	3	4	5
5. My career depends on my seniors.	1	2	3	4	5
6. My effectiveness in this organization is determined by senior people.	1	2	3	4	5
7. The organization a person joins or the job he or she takes is an accidental occurrence.	1	2	3	4	5
8. A person's career is a matter of chance.	1	2	3	4	5
9. A person's success depends on the breaks or chances he or she receives.	1	2	3	4	5
10. Successful completion of my assignments is due to my detailed planning and hard work.	1	2	3	4	5
11. Being liked by seniors or making good impressions on them influences promotion decisions.	1	2	3	4	5
12. Receiving rewards in the organization is a matter of luck.	1	2	3	4	5
13. The success of my plans is a matter of luck.	1	2	3	4	5
14. Receiving a promotion depends on being in the right place at the right time.	1	2	3	4	5
16. My success depends on my competence and hard work.	1	2	3	4	5

	1	2	3	4	5
	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
17. How much I am liked in the organization depends on my seniors.	1	2	3	4	5
18. Getting people in this organization to listen to me is a matter of luck.	1	2	3	4	5
19. If my seniors do not like me, I will not succeed in this organization.	1	2	3	4	5
20. The way I work determines whether or not I receive rewards.	1	2	3	4	5
21. My success or failure in this organization is a matter of luck.	1	2	3	4	5
22. My success or failure depends on those who work with me.	1	2	3	4	5
23. Any promotion I receive in this organization will be due to my ability and effort.	1	2	3	4	5
24. Most things in this organization are beyond the control of the people who work here.	1	2	3	4	5
25. The quality of my work influences decisions on my suggestions in this organization.	1	2	3	4	5
26. The reason I am acceptable to others in my organization is a matter of luck.	1	2	3	4	5
27. I determine what happens to me in the organization.	1	2	3	4	5
28. The degree to which I am acceptable to others in this organization depends on my behavior with them.	1	2	3	4	5
29. My ideas are accepted if I make them fit with the desires of my seniors.	1	2	3	4	5
30. Pressure groups in this organization are more powerful than individual employees are, and they control more things than individuals do.	1	2	3	4	5

Part II

The following 37 statements are about your belief or actions taken in life. Some of them may agree to your belief or actions taken and some of them not. Please assess the content of each statement and circle out the number which most represents your view.

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
1. In my past school life, I always put extra effort to meet the expectations of my parents.	1	2	3	4	5
2. I often stay late at night in order to complete the work I favour.	1	2	3	4	5
3. Before doing something, I always hope that others can tell me the detailed steps.	1	2	3	4	5
4. I will feel a sense of achievement when I have satisfactorily completed a job, even nobody else know it.	1	2	3	4	5
5. When working, I expect myself to follow the standard of classmates or friends.	1	2	3	4	5
6. I always do something only to show others that I am useful.	1	2	3	4	5
7. I will try my best to do things I find deserving, no matter how difficult it is.	1	2	3	4	5
8. In order to let others believe that I am highly capable, I will put the greatest effort to do well in every job.	1	2	3	4	5
9. I like to use my own standard to assess how I perform in every job.	1	2	3	4	5
10. I want to obtain things which are considered valuable by the general public in the society.	1	2	3	4	5
11. My pursuit of higher academic qualification is not for winning honor and distinction for my family but for my own interest in knowledge.	1	2	3	4	5
12. My major life goal is to complete things that my parents feel proud of.	1	2	3	4	5
13. I work very hard until I feel satisfied with my performance.	1	2	3	4	5

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
14. I mostly adore those people of high social status.	1	2	3	4	5
15. No matter what other people think, I will do everything I think deserving.	1	2	3	4	5
16. I feel that the value of my life goal should be decided on my own.	1	2	3	4	5
17. I prefer others to assess my work performance more.	1	2	3	4	5
18. I normally choose the things I like to do on my own wish.	1	2	3	4	5
19. If I were not able to outperform others, I will be really sorry for my ancestors.	1	2	3	4	5
20. I always think whether my performance has met my expectations or standard.	1	2	3	4	5
21. I am not willing to take risks when choosing a job or a company to work for.	1	2	3	4	5
22. I prefer to a low risk/high security job with a steady salary over a job that offers high risks and high rewards.	1	2	3	4	5
23. I prefer to remain on a job that has problems that I know about rather than take the risks of working at a new job that has unknown problems, even if the new job offers greater rewards.	1	2	3	4	5
24. I view risk on a job as a situation to be avoided at all costs.	1	2	3	4	5
25. The most interesting life is to live under rapidly changing conditions.	1	2	3	4	5

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
26. Adventurous and exploratory people go farther in this world than do systematic and orderly people.	1	2	3	4	5
27. When planning a vacation, a person should have a schedule to follow if he's really going to enjoy himself.	1	2	3	4	5
28. Doing the same thing in the same places for a long period of time makes for a happy life.	1	2	3	4	5
29. I am satisfied with the current work situation so I do not want any change.	1	2	3	4	5
30. I prefer to work in a stable work environment.	1	2	3	4	5
31. I believe that my company should continue just as it is now because it is well-established.	1	2	3	4	5
32. Companies should aim at stability rather than changes because it is good to employees.	1	2	3	4	5
33. Frequent changes do more harm than good to a company.	1	2	3	4	5
34. Managers should frequently acquire information on environmental trends for developing new ideas.	1	2	3	4	5
35. Managers should initiate and promote changes in their company.	1	2	3	4	5
36. Continuous change is necessary to organizational development of a company.	1	2	3	4	5
37. Managers should normally support both incremental and radical changes of their company.	1	2	3	4	5

Part III

The following are the changes that usually take place in an organization. Please indicate (1) its magnitude (degrees) of changes in your organization in the past year; (2) how favorable the impact of changes has been to you yourself by circling the number of the given scale .

<u>Degree of Changes</u>					<u>Kind of changes</u>	<u>How favorable</u>				
Very Low Degree	Somewhat Low Degree	Moderate	Somewhat High Degree	Very High Degree		Highly Unfavorable	Somewhat Unfavorable	Neither Favourable Nor Unfavorable	Somewhat Favorable	Highly Favorable
1	2	3	4	5	company goals	1	2	3	4	5
1	2	3	4	5	company strategies	1	2	3	4	5
1	2	3	4	5	organizational structure	1	2	3	4	5
1	2	3	4	5	administrative policies & procedures	1	2	3	4	5
1	2	3	4	5	organizational culture	1	2	3	4	5
1	2	3	4	5	management style	1	2	3	4	5
1	2	3	4	5	tools, equipment & machinery	1	2	3	4	5
1	2	3	4	5	technical systems	1	2	3	4	5
1	2	3	4	5	interior design/physical setting	1	2	3	4	5
1	2	3	4	5	reward system	1	2	3	4	5
1	2	3	4	5	performance appraisal system	1	2	3	4	5
1	2	3	4	5	job design	1	2	3	4	5
1	2	3	4	5	work flow & procedures	1	2	3	4	5
1	2	3	4	5	production process/operations	1	2	3	4	5
1	2	3	4	5	acquisitions/mergers	1	2	3	4	5
1	2	3	4	5	internal development of new business	1	2	3	4	5
1	2	3	4	5	internal development of new products/services in existing businesses	1	2	3	4	5
1	2	3	4	5	development of new geographic markets (including international)	1	2	3	4	5

Degree of Changes					Kind of changes	How favorable				
Very Low Degree	Somewhat Low Degree	Moderate	Somewhat High Degree	Very High Degree		Highly Unfavorable	Somewhat Unfavorable	Neither Favourable Nor Unfavorable	Somewhat Favorable	Highly Favorable
1	2	3	4	5	actions to increase market share in existing products/markets	1	2	3	4	5
1	2	3	4	5	joint ventures with other firms	1	2	3	4	5
1	2	3	4	5	Downsizing	1	2	3	4	5
1	2	3	4	5	Other changes (Please specify) : _____	1	2	3	4	5

Part IV

A little bit about yourself :

1. I am male ☐ female ☐
2. Your age (based on last birthday) _____.
3. Highest education attained :
_____ secondary school; _____ post-secondary;
_____ bachelor degree; _____ post-graduate degree
4. Please indicate (a) the number of years you have worked in each of the following functional areas in the blanks on the right and (b) put a '✓' against the appropriate box on the left to indicate your present functional area.
- ☐ Accounting

_____;
- ☐ Finance

_____;
- ☐ Marketing and sales

_____;
- ☐ Human resource

_____;
- ☐ Production and operations

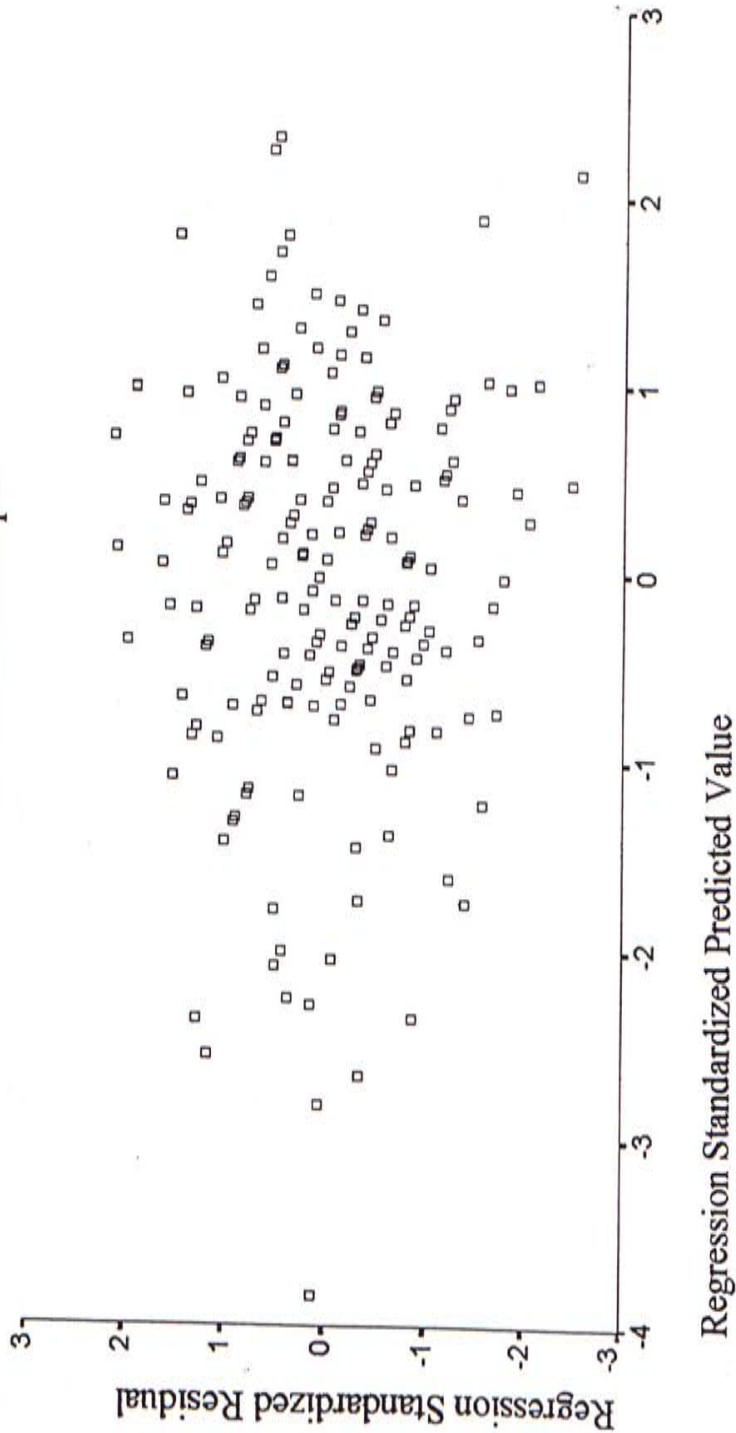
_____;
- ☐ Research and development

_____;

- ☐ General Management /Administration _____;
- ☐ Computer / Information System _____;
- ☐ Others (Please specify) : _____.
5. How long have you been employed by your present company? _____
6. Please indicate (a) the number of years you have worked in each of the following industries in the blanks on the right and (b) put a '✓' against the appropriate box on the left to indicate the nature of your present industry :
- ☐ Manufacturing _____;
- ☐ Wholesale, Retail or Import / Export Trades _____;
- ☐ Banking , Finance, or Insurance _____;
- ☐ Construction /Architecture _____;
- ☐ Restaurants, Hotels or Catering Services _____;
- ☐ Airline/Shipping/Transportation _____;
- ☐ Real Estate or Business Services _____;
- ☐ Others (Please specify) : _____.
7. How long have you been working in your current industry? _____.
8. Please indicate the total number of management levels in your company (excluding those operatives i.e. non-supervisory and non-managerial levels) : _____.
9. At what level from the top is your present management level (regarding level 1 the highest) ?
_____.
10. Number of staff in your company (Those in Hong Kong only) : _____.

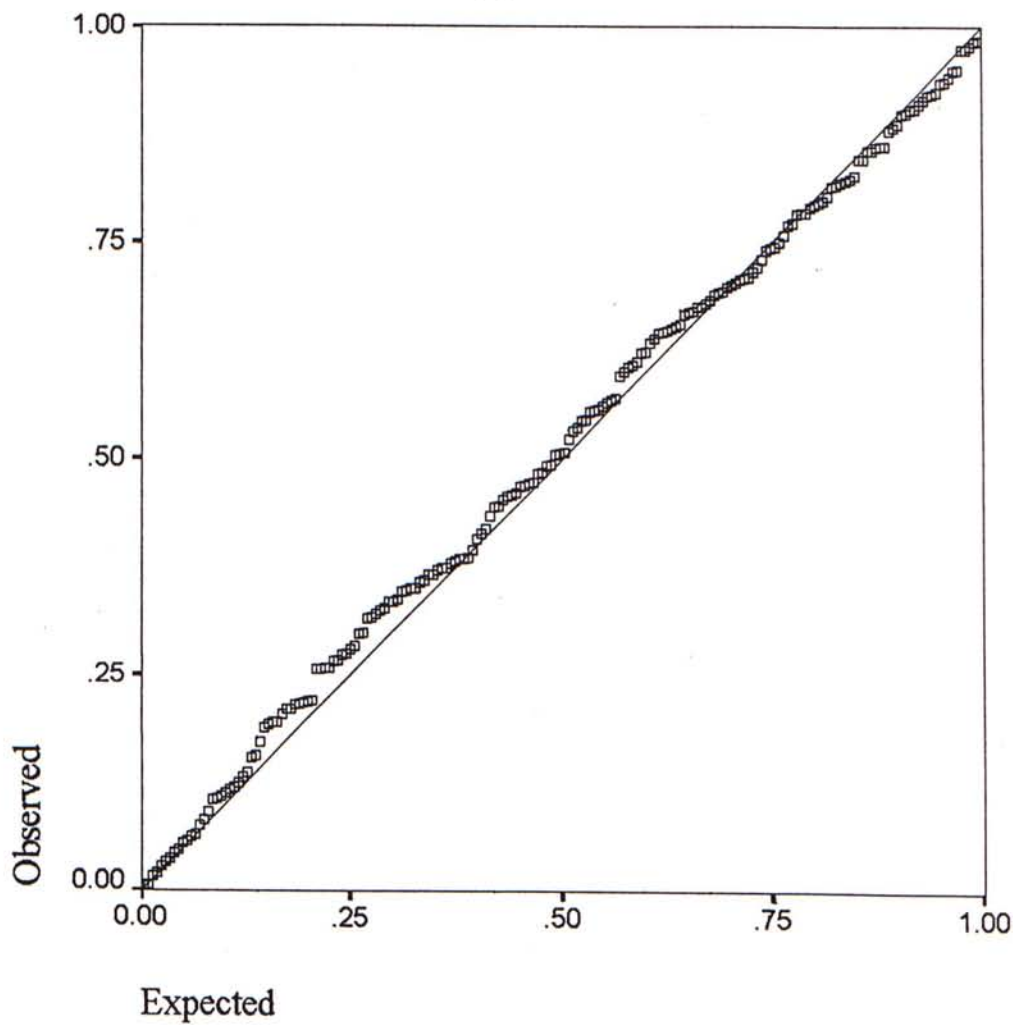
This is the end of this survey. Thank you very much for your time. Your effort here has helped advance our understanding of organizations in Hong Kong.

Appendix D
Standardized residual plot



Appendix E

Normal probability plot : standardized residuals



CUHK Libraries



003704153